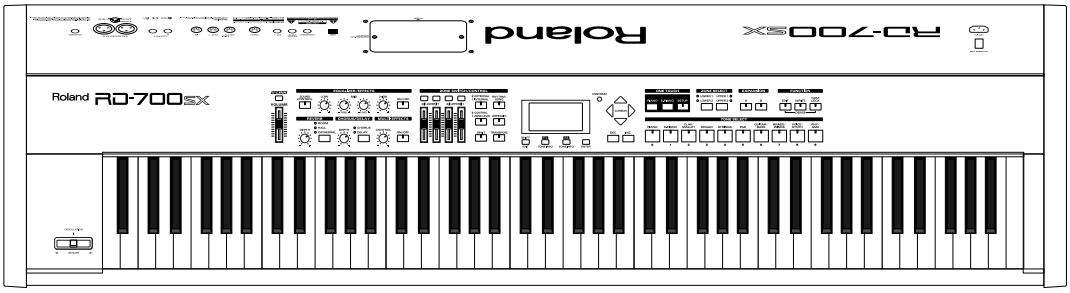
Roland®

RD-700SX

Owner's Manual

Thank you, and congratulations on your choice of the Roland Digital Piano RD-700SX.

Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 3), and "IMPORTANT NOTES" (p. 5). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, owner's manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.



Copyright © 2004 ROLAND CORPORATION
All rights reserved. No part of this publication may be reproduced in any form without the written permission of ROLAND CORPORATION.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠WARNING and ⚠CAUTION Notices

⚠**WARNING**	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠**CAUTION**	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

⚠	The △ symbol alerts the user to important instructions or warnings.The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
⃠	The ⃠ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
●	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.
- Connect mains plug of this model to a mains socket outlet with a protective earthing connection.
- Do not open or perform any internal modifications on the unit. (The only exception would be where this manual provides specific instructions which should be followed in order to put in place user-installable options; see p. 15 .)
- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.
- Never use or store the unit in places that are:
  - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
  - Damp (e.g., baths, washrooms, on wet floors); or are
  - Humid; or are
  - Exposed to rain; or are
  - Dusty; or are
  - Subject to high levels of vibration.
- This unit should be used only with a rack or stand that is recommended by Roland.

⚠WARNING

- When using the unit with a rack or stand recommended by Roland, the rack or stand must be carefully placed so it is level and sure to remain stable. If not using a rack or stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.
- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the rear side of unit.
- Use only the attached power-supply cord. Also, the supplied power cord must not be used with any other device.
- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!
- This unit, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist.
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.

⚠ WARNING

- Immediately turn the power off, remove the power cord from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:
  - The power-supply cord, or the plug has been damaged; or
  - If smoke or unusual odor occurs
  - Objects have fallen into, or liquid has been spilled onto the unit; or
  - The unit has been exposed to rain (or otherwise has become wet); or
  - The unit does not appear to operate normally or exhibits a marked change in performance.

- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.

- Protect the unit from strong impact.
  (Do not drop it!)

- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

- Always turn the unit off and unplug the power cord before attempting installation of the circuit board (SRX Series; p. 15).

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result.

- Do not put anything that contains water (e.g., flower vases) on this unit. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the unit. Swiftly wipe away any liquid that spills on the unit using a dry, soft cloth.

⚠ CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation.

- This (RD-700SX) for use only with Roland stand KS-17. Use with other stands (or carts) is capable of resulting in instability causing possible injury.

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.

- At regular intervals, you should unplug the power plug and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire.

- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.

- Never climb on top of, nor place heavy objects on the unit.

- Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.

- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.

- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 23).

- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.

- Install only the specified circuit board(s) (SRX Series). Remove only the specified screws (p. 15).

- Should you remove the screws fastening the board slot cover, keep them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.

IMPORTANT NOTES

In addition to the items listed under "IMPORTANT SAFETY INSTRUCTIONS" and "USING THE UNIT SAFELY" on pages 3 and 4, please read and observe the following:

Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter (such as a refrigerator, washing machine, microwave oven, or air conditioner), or that contains a motor. Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.
- Although the LCD and LEDs are switched off when the POWER switch is switched off, this does not mean that the unit has been completely disconnected from the source of power. If you need to turn off the power completely, first turn off the POWER switch, then unplug the power cord from the power outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach and readily accessible.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.
- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.
- Do not allow objects to remain on top of the keyboard. This can be the cause of malfunction, such as keys ceasing to produce sound.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and Data

- Please be aware that all data contained in the unit's memory may be lost when the unit is sent for repairs. Important data should always be backed up in another MIDI device (e.g., a sequencer), or written down on paper (when possible). During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data, and Roland assumes no liability concerning such loss of data.

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of loosing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory in another MIDI device (e.g., a sequencer).
- Unfortunately, it may be impossible to restore the contents of data that was stored in another MIDI device (e.g., a sequencer) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- Never strike or apply strong pressure to the display.
- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Use only the specified expression pedal (EV-5/7; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.

Handling CD-ROMs

- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD-ROM discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.

Main Features

Progressive Hammer Action

The RD-700SX incorporates Roland's "progressive hammer action keyboard," which realistically reproduces the comfortable, natural touch of the grand piano. While offering excellent responsiveness and quiet action, this keyboard also reproduces the subtle changes in touch as you move from the lower to the higher registers.
Additionally, the progressive hammer action keyboard features an environmentally friendly design, with absolutely no lead used in the hammers.

New Piano Tones

The instrument features newly developed, authentic piano tones with wide dynamic range and rich expression. Great for any musical genre or scene, whether it be performing with a band or playing a solo ballad, the RD-700SX is the perfect stage piano.
Additionally, The instrument features an 88-note multisampled piano painstakingly recorded by professional engineers. It boasts not only tonal quality but also a high level of presence, making it closer than ever to the "real thing."
It is also furnished with a wealth of electronic piano, organ, string, synth pad, and other Tones that allow you to use the instrument as a stage piano. Once you try it onstage, you'll come to fully understand its capabilities.

Exclusive Piano Functions

The "Piano Edit" function allows you to program subtle changes for the piano and electric piano tones (p. 73).

A Full 128 Voices

The RD-700SX features 128-voice polyphony, with all sounds available in every performance mode. Enjoy natural performances even when layering multiple sounds.

Simple Push-Button Operation

You can access Split, Effects and carry out other main operations simply by pressing a single button (p. 12).
Furthermore, pressing the ONE TOUCH [PIANO] button lets you immediately switch to the settings most suited for piano performances, regardless of the mode or settings currently in effect (p. 32).

High-Quality Effects

In addition to two multi-effects systems, you can also use the reverb and chorus individually. The instrument also realistically reproduces the tonal changes of an acoustic grand piano, including the change in resonance created by pressing the damper pedal (p. 75) and the degree of openness of the grand piano's lid (p. 74).
Moreover, the Sound Control function (p. 44) and digital equalizer (p. 45) enable a wide range of tonal adjustments.

Equipped With Organ Tone Wheel Sound Generator

For organ Tones, the RD-700SX comes equipped with an organ Tone wheel sound generator used in the Roland Combo Organ. This sound generator lets you recreate organ sounds, changing the level of each footage (p. 54).

Rhythm and Arpeggiator Functions

You can play back Rhythm patterns and perform arpeggios with the press of a single button.
Enjoy a variety of performance techniques, with backing using realistic drum sounds for a real session feel, arpeggios and cutting you get just by playing the chords, and more (p. 46,p. 48).

Fast MIDI Control

You can also control various functions, such as adjusting volume levels and selecting Tones, simply and easily from an external MIDI device. This provides fast and intuitive control when using the keyboard on stage (p. 60).

Interface for Full Connectivity

The RD-700SX comes equipped with a USB port for connecting to computers. You can use this to perform with MIDI data received from the computer and to save the RD-700SX's setup files.
Additionally, two separate MIDI OUT ports allow you to control two different MIDI sound modules simultaneously.
On top of all this, the RD-700SX XLR connectors provide balanced output to connected audio gear, enabling you to supply stable audio output.

Expandability

You can install up to two Wave Expansion Boards, a favorite for use with Roland's SRX Series.
Starting with the "SRX-02 Concert Grand" Tone, you can enjoy performing with the most up-to-date Tones available as they are continually released (p. 15).

Sophisticated Design

With its black body, the RD-700SX offers the perfect look and presence on stage. The panel's refined design enhances operability, while rear cable connections are a cinch.
In addition, the cover to the wave expansion board is designed so it won't easily fall off even if the screws are removed.

SMF Play Function

The RD-700SX is compatible with both General MIDI and General MIDI 2 standards. Additionally, you can transmit SMF music files to the RD-700SX from the USB port and play back the data. This allows you to perform while playing back SMF music files without the use of an external sequencer.

Convention Used in This Manual

- Words enclosed in square brackets [ ] indicate panel buttons. Example: [SPLIT] indicates the SPLIT button.
- (p. **) indicates a reference page
- The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system (e.g., includes newer sounds), so what you actually see in the display may not always match what appears in the manual.

Contents

USING THE UNIT SAFELY 3
IMPORTANT NOTES 5

Main Features 6

Panel Descriptions 12

Front Panel 12
Rear Panel 14

Getting Ready 15

Installing the Wave Expansion Board 15
- Cautions When Installing an Wave Expansion Board 15
- Installing SRX Series Boards 16
- Checking the Installed Wave Expansion Boards 17

Installation de la carte d'extension Wave(French language for Canadian Safety Standard) 18
- Precautions lors de l'installation de la carte d'extension Wave 18
- Installer les cartes de serie SRX 19
- Verification des cartes d'extension audio apres installation 20

Connecting the RD-700SX to External Equipment 21
- Connecting Pedals 22

Turning the Power On and Off 23
- Turning On the Power 23
- Turning Off the Power 24

Adjusting the Volume 24
Restoring the Factory Settings (Factory Reset) 25
Adjusting the Display Contrast (LCD Contrast) 26
Tuning to Other Instruments' Pitches (Master Tune) 27

Overview of the RD-700SX 28

Basic Organization of the RD-700SX 28
Units of Sound 28
Basic Operation 28
- Main Screens 28
- Special Indications 29
- About the Function Buttons 29
- About the CURSOR Buttons 30
- Changing the Settings Values 30

Listening to the Demo (DEMO PLAY) 31

Performing with the Keyboard 32

Piano Performances (ONE TOUCH) 32
Performing with a Variety of Tones 33
- Specifying the Tone Number to Select a Tone ([NUM LOCK]) 34
- Selecting Wave Expansion Board Tones 35

Playing Multiple Tones with the Keyboard 37
- Performing with Layered Tones 37
- Playing Different Tones in Two Different Sections of the Keyboard ([SPLIT]) 38
- Changing the Tone for a Zone 40

Adjust the Volume Level for Individual Zones (ZONE SWITCH/ZONE LEVEL Slider) 41
Transposing the Key of the Keyboard ([TRANSPOSE]) 42
Adding Reverberation to the Sound ([REVERB]) 43
Adding Breadth to the Sound ([CHORUS/DELAY]) 43
Changing the Sound's Pitch in Real Time (Bender/Modulation Lever) 44
Adding Liveliness to the Sound ([SOUND CONTROL]) 44
Adjusting the Level of the Sound's Low, Mid, and High-Frequency Ranges ([EQUALIZER]) 45

Using the Convenient Functions in Performances.....46

Playing Arpeggios ([ARPEGGIO]) 46
Changing the Arpeggio Style 47
Changing Arpeggio Tempos..... 47
Playing Rhythm ([RHYTHM/SONG]) 48
Changing the Rhythm Pattern..... 49
Changing Rhythm Tempos 49
Playing the Songs ([RHYTHM/SONG])..... 50
Selecting the Song..... 51
Changing Song Tempos 51
Applying Effects to the Sound (Multi-Effects)..... 52
Simulating the Creation of Organ Tones (Tone Wheel Mode) 53
Changing the Undulation of the Organ Tone (Rotary Effect)..... 54
Changing the ZONE LEVEL Slider Feet Assignments (Harmonic Bar) 54
Disabling the Button (Panel Lock) 55
Selecting Stored Settings ([SETUP])..... 56
Registering the Setups You Like (Favorite Setups) 57
Storing Settings to Setups ([WRITE]) 58

Using the RD-700SX As a Master Keyboard.....60

What's MIDI? 60
About MIDI Connectors 60
Connecting to External MIDI Sound Generators..... 60
Selecting the MIDI Connector to Use for Output (MIDI OUT Port)..... 61
MIDI Send Channel Settings..... 62
Selecting Sounds on an External MIDI Device..... 63
Adjusting the Volume of Each Zone (EXTERNAL Zone) 64
Detailed Settings for Transmitted Parts (EXTERNAL) 65
How to Make Settings 65
Adjusting the Volume and Pan (Volume/Pan) 65
Setting the Amount of Reverb and Chorus (Reverb/Chorus) 65
Playing Sound Monophonically (Mono/Poly) 66
Setting the Transposition for Each Individual Zone (Transpose)..... 66
Setting the Key Range (Key Range Lower/Upper) 66
Changing the Range That Plays in Response to the Velocity (Velocity Range Lower/Upper) 66
Changing Tone Elements (ATK/DCY/REL/COF/RES)..... 66
Smoothly Changing the Pitch (Portamento) 67
Setting the Change in Volume According to the Force Used to Play the Keyboard (Velocity Sensitivity/Max) 67
Changing the Pitch (Coarse Tune/Fine Tune)..... 67
Setting the Range for the Change in Pitch with the Bender (Bend Range)..... 67
Setting the Amount of Modulation Applied (Modulation Depth) 67
Turning Each Controller On and Off 67
Transmitting the Control Change (USER CC/USER CC Value) 67

Making Detailed Settings for Tones 68

Making Zone Settings (Zone Info) 68
How to Make Settings..... 68
Selecting the Tone..... 68
Setting the Volume and Pan (Volume/Pan)..... 68
Setting the Zone to Which Multi-effects Are Applied (MFX1/MFX2 Source)..... 68
Setting the Transposition for Each Individual Zone (Transpose) 69
Setting the Key Range for Each Zone (Key Range) 69
Setting the Change in Volume According to the Force Used to Play the Keyboard (Velocity Range/Sens/Max)..... 69
Assigning Internal Parts to INTERNAL Zone (Part Assign) 69
Turning the Controllers in Each Zone On and Off..... 70

Making Tone Settings (Tone Info) ... 70
How to Make Settings ... 70
Selecting the Part and the Tone to Be Set (Part, Tone) ... 71
Setting the Reverb/Chorus Depth (Reverb/Chorus Amount) ... 71
Changing the Effect Applied to the Tone (MFX Type) ... 71
Playing Sound Monophonically (Mono/Poly) ... 71
Changing the Pitch (Coarse Tune/Fine Tune) ... 71
Creating Smooth Pitch Changes (Portamento Switch/Time) ... 71
Changing Tone Elements (Attack Time/Release Time/Cutoff/Resonance/Decay Time) ... 72
Changing the Bend Range (Bend Range) ... 72

Making Detailed Settings for the ONE TOUCH Tones ... 73

Making Detailed Settings for the Piano Tones (Piano Edit) ... 73
Making the settings ... 73
Selecting the Piano Sound ... 73
Changing the Width of the Sound (Stereo Width) ... 73
Changing the Sound's Nuance (Nuance) ... 73
Changing the Sense of Space Surrounding the Sound (Ambience) ... 73
Changing the Amount of Reverb Effect (Reverb Level) ... 73
Opening/Closing the Piano Lid (Lid) ... 74
Changing the Characteristics of the Mic (Mic Type/Distance) ... 74
Adjusting the Resonant Sounds When the Keys are Pressed (String Resonance) ... 74
Making the Midrange Equalizer Settings (EQ SW/EQ Gain/EQ Frequency/EQ Q) ... 74
Changing the Key Touch (Key Touch) ... 74
Making Fine Adjustments to the Keyboard Touch (Key Touch Offset) ... 75
Setting a Constant Volume Level in Response to the Playing Force (Velocity) ... 75
Changing the Timing of Sounds in Response to the Velocity (Velocity Delay Sens) ... 75
Changing the Touch Sensitivity According to the Key Range (Velocity Keyfollow Sens) ... 75
Finely Adjusting the Tuning (Micro Tune) ... 75
Adjusting Resonance when the Damper Pedal is Depressed (Sympathetic Resonance) ... 75
Changing Sound Characteristics (Tone Modify) ... 76
Restore the settings to initial conditions (Initialize) ... 76
Making Detailed Settings for the E.Piano Tones (E.Piano Edit) ... 76
Making the settings ... 76
Selecting the E.Piano Sound ... 77
Selecting the Amp Type(AMP Type) ... 77
Applying Effects to the Sound (Effect Type/Depth/Rate) ... 77
Making the Midrange Equalizer Settings (EQ-SW/EQ Gain/EQ Frequency/EQ Q) ... 77
Changing Sound Characteristics (Tone Modify) ... 77

Detailed Settings for Each Function ([EDIT]) ... 78

Parameters That Can Be Set ... 78
Setting Parameters ... 79
Making System Settings (System) ... 79
How to Make Settings ... 79
Adjusting the Volume (Master Volume) ... 80
Preventing Equalizer Settings from Being Switched (EQ Mode) ... 80
Preventing Pedal Settings from Being Switched (Pedal Mode) ... 80
Retaining the Current Tone Even When Tones Are Switched (Tone Remain) ... 81
Changing the Clock (Timing) Source (Clock Source) ... 81
Transmitting Synchronization Messages (Clock Out) ... 81
Using Program Change Messages to Switch Setups (SETUP Control Channel) ... 81
Setting the Device ID Number (Device ID) ... 81
Switching the Pedal's Polarity (Pedal/FC1/FC2 Polarity) ... 81
Selecting the Display Appearance (Display Mode) ... 82
Selecting the Number of Parts (Part Mode) ... 82
Setting the Tuning Method (Temperament/Key) ... 82
Precise Modification of Chord Sonorities (Stretch Tune) ... 82
Switching Between Reception of GM/GM2 System On and GS Reset ... 82
Setting the Keyboard Touch (Key Touch) ... 83

How to Make Settings ... 83
Changing the Key Touch (Key Touch) ... 83
Making Fine Adjustments to the Keyboard Touch (Key Touch Offset) ... 83
Setting a Constant Volume Level in Response to the Playing Force (Velocity) ... 84
Changing the Timing of Sounds in Response to the Velocity (Velocity Delay Sens) ... 84
Changing the Touch Sensitivity According to the Key Range (Velocity Keyfollow Sens) ... 84
Pedal and MULTI EFFECTS [CONTROL] Knob Settings (Control) ... 84
How to Make Settings ... 84
Assigning Functions to Pedals (FC1/FC2 Pedal Assign) ... 85
Changing the MULTI EFFECTS [CONTROL] Knob Settings (Control Knob Assign) ... 85
Changing the Slider Settings (Slider Assign) ... 85
Setting the Multi-Effects, Reverb, and Chorus Effects (Effects) ... 86
How to Make Settings ... 86
Making Multi-Effects Settings ... 86
Making Reverb Settings ... 87
Setting Chorus and Delay ... 88
Making the Sound Control Settings (Sound Control) ... 88
How to Make Settings ... 88
Selecting the Type of Compressor (Sound Control Type) ... 89
Detailed Settings of Compressor ... 89
Managing Setup Files (File Utility/USB) ... 89
Saving Setup Files to the Memory (Save SETUP File) ... 89
Calling Up Setup Files from Memory (Load SETUP File) ... 90
Deleting Files from Memory (File Delete) ... 91
Setting MIDI Receive Parts (Part Parameter) ... 91
How to Make Settings ... 91
Selecting the Part to Be Set (Part/Tone) ... 92
Setting the Receive Channel (Receive Channel) ... 92
Setting the Volume and Pan (Volume/Pan) ... 92
Setting the Required Polyphony (Voice Reserve) ... 92
Preventing Parts from Being Played (Part Switch) ... 92
Making the Effect ON/OFF Settings (MFX Switch) ... 92
Setting Reception and Blocking of MIDI Messages from External MIDI Controllers ... 92
Making the Rhythm and Arpeggio Settings (Rhythm/Arpeggio) ... 93
How to Make Settings ... 93
Making the rhythm Settings ... 93
Making Arpeggio Settings ... 95
About V-LINK ... 97
Connection Examples ... 97
Turning the V-Link ON/OFF ... 97
V-Link Settings ... 97
Detailed Settings of V-Link ... 98
Other Functions (Utility) ... 98
Transferring the RD-700SX's Settings to an External MIDI Device (Bulk Dump) ... 98
Restoring the settings to the factory condition (Factory Reset) ... 100

Connecting External MIDI Devices ... 101

Recording RD-700SX Performances to an External MIDI Sequencer ... 101
Connecting to an External Sequencer ... 101
Settings for Recording (Rec Setting) ... 101
Recording the Performance ... 102
Exiting Rec Mode ... 102
About the Local Switch ... 102
Playing the RD-700SX's Internal Sound Generator from an External MIDI Device ... 103
Making Connections ... 103
Setting the Channels ... 103
Selecting RD-700SX Sounds from an External MIDI Device ... 103
Switching Setups ... 103
Switching Tones ... 103

Connecting to Your Computer via USB (USB Mode).....104

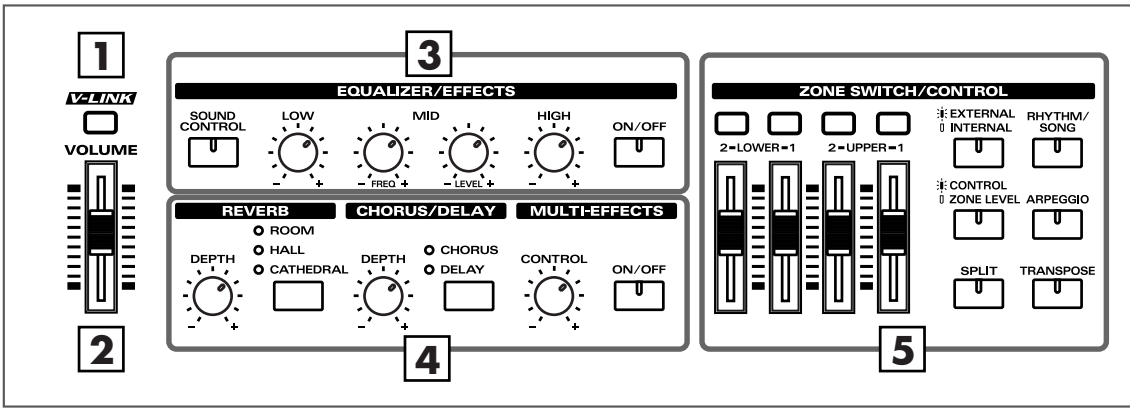
About USB Functions..... 104
Switching Between Storage Mode and MIDI Mode..... 104
Exchanging Files with Computers (Storage Mode)..... 105
Connections..... 105
Cautions Regarding Folders and Files 105
Exchanging Files..... 105
Exiting Storage Mode..... 105
Exchanging MIDI Messages with Your Computer (MIDI Mode)..... 106
Switching USB Drivers 106

Appendices.....108

Troubleshooting..... 108
Error Messages/Other Messages 111
Error Messages..... 111
Other Messages..... 111
Effect/Parameter List..... 112
Multi-Effects Parameter..... 112
Chorus Parameter..... 144
Reverb Parameter 145
Tone List 146
Rhythm Set List..... 149
Arpeggio Style List..... 152
Rhythm Pattern List 153
Setup List 154
Shortcut List 155
MIDI Implementation..... 156
Main Specifications 172
Index..... 173
Purpose-Oriented Index 178
Volume Setting..... 178
Key Touch and Velocity 178
Equalizer 178
Pitch and Tuning 178
Effects (Reverb, Chorus, Multi-Effects)..... 178
Control 178
Key Range..... 178

Panel Descriptions

Front Panel



1. [V-LINK]

Switching this on lets you control external V-LINK compatible video equipment connected to the RD-700SX (p. 97).

2. VOLUME Slider

Adjusts the overall volume that is output from the rear panel OUTPUT jacks and PHONES jack (p. 24).

3. EQUALIZER/EFFECTS

[SOUND CONTROL]

Switching this on reduces inconsistencies in the volume and produces a more stable, coherent sound (p. 44).

[LOW] knob

Adjusts the sound's low-frequency range (p. 45).

[MID FREQ] knob

Adjusts the midrange frequencies (p. 45).

[MID LEVEL] knob

Adjusts the sound's midrange-frequency range (p. 45).

[HIGH] knob

Adjusts the sound's high-frequency range (p. 45).

[ON/OFF]

Turns the equalizer on/off (p. 45).

4. REVERB, CHORUS/DELAY, MULTI-EFFECTS

REVERB [DEPTH] knob

Adjusts the amount of reverb (p. 43).

[REVERB]

Changes the reverb type (p. 43).

CHORUS/DELAY [DEPTH] knob

Adjusts the amount of chorus (p. 43).

[CHORUS/DELAY]

Changes the chorus type (p. 43).

MULTI-EFFECTS [CONTROL] knob

Adjusts the way that effects are applied (p. 52).

MULTI-EFFECTS [ON/OFF]

Switches the multi-effects on/off (p. 52).

5. ZONE SWITCH/CONTROL

ZONE SWITCH

Turns each part's sound on and off (p. 41).

ZONE LEVEL slider

Adjusts the volume level for each part (p. 41).
When [EXTERNAL/INTERNAL] is on, this controls each part for the external MIDI sound generator (p. 64).
In addition, when [CONTROL/ZONE LEVEL] is on, the tone is changed in real time in response to the assigned parameter and function.

[EXTERNAL/INTERNAL]

Puts the RD-700SX in control of the external MIDI sound generator (p. 60).

[RHYTHM/SONG]

Switches RHTYHM and SONG on/off (p. 48, p. 50).

[CONTROL/ZONE LEVEL]

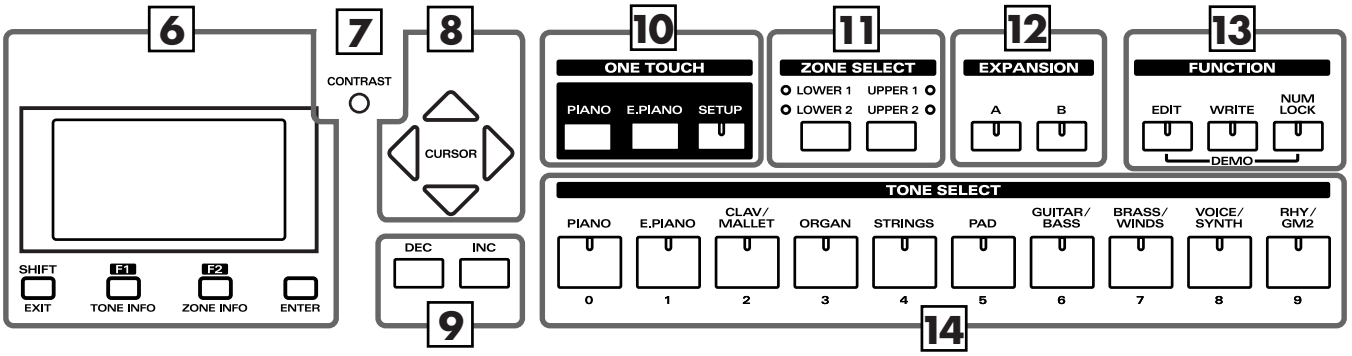
This determines the function of the ZONE LEVEL sliders (p. 85).

[ARPEGGIO]

Switches Arpeggiator on/off (p. 46).

[SPLIT]

Puts the keyboard in "Split mode," wherein you can use more than one tone by having different tones play in different parts of the keyboard (p. 38).



[TRANSPOSE]

Sets the range of the keyboard to transposed (p. 42).

6. DISPLAY

This shows the Tone names and the values of various settings, etc.

[SHIFT/EXIT]

Pressed to return to a previous screen or to cancel a procedure that is in progress.

Additionally, you can easily call up Edit screens for related parameters for the following functions by holding down this button while pressing buttons, turning knobs, or operating other controllers (p. 155).

[F1/TONE INFO]

This allows you to change the tone settings (p. 70).

You can also use this to assign functions in some screens.

[F2/ZONE INFO]

This allows you to change the zone settings (p. 68).

You can also use this to assign functions in some screens.

[ENTER]

This is used to finalize a value or execute an operation.

7. CONTRAST knob

Adjusts the display's contrast (p. 26).

8. CURSOR [◀], [▲], [▶], [▼]

Press these to switch pages and to move the cursor.

9. [DEC], [INC]

This is used to modify values.

If you keep on holding down one button while pressing the other, the value change accelerates.

10. ONE TOUCH

[PIANO]

Selects the optimum settings for piano performances (p. 32).

[E.PIANO]

Selects the optimum settings for E.piano performances (p. 32).

[SETUP]

Calls up the stored settings (Setup) (p. 56).

11. ZONE SELECT buttons

Selects the zone for which the tone is to be selected (p. 40).

12. EXPANSION [A], [B]

This selects a sound from a wave expansion board, sold separately (p. 35).

13. FUNCTION

[EDIT]

Press this button when you wish to adjust various settings (p. 78).

[WRITE]

Stores the current settings to "Setup" (p. 58).

[NUM LOCK]

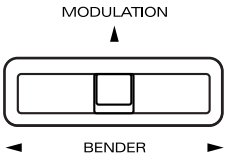
You can input numerical values with the TONE SELECT buttons when this button is lit (p. 34).

In addition, you can listen to the demo songs by simultaneously pressing this button and [EDIT] (DEMO PLAY) (p. 31).

14. TONE SELECT buttons

Pressed to select tones (p. 33).

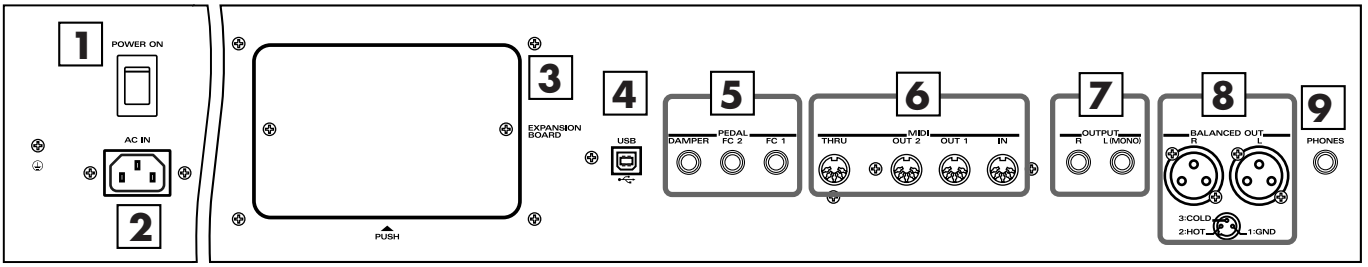
You can also input numerical values with these buttons when the [NUM LOCK] button is on. [NUM LOCK] turns on automatically in the Edit and other screens, enabling input of numerical values with the buttons.



Pitch Bend/Modulation Lever

This allows you to control pitch bend or apply vibrato (p. 44).

Rear Panel



1. [POWER ON] Switch

Switch turns the power on/off (p. 23).

2. AC Inlet

Connect the included power cord to this inlet (p. 21).

3. Wave Expansion Board Installation Slot

Remove the cover for installation of optional wave expansion boards (SRX Series) (p. 15).

4. USB Connector

Connect your computer here to exchange Standard MIDI file and setup file between the computer and the RD-700SX (p. 104).

5. PEDAL Jacks (DAMPER, FC1, FC2)

Connecting the pedal switch (DP series) provided with the RD-700SX to the DAMPER jack allows you to use the switch as a damper pedal.

With a pedal connected to the FC-1 or FC-2 jack, you can then assign a variety of functions to the pedal (p. 70, p. 84).

6. MIDI Connectors (IN, OUT1, OUT2, THRU)

Used for connecting external MIDI devices and for transmission of MIDI messages (p. 60, p. 91, p. 101).

7. OUTPUT L (MONO)/R Jacks

Provide output of the audio signals. These are connected to an amp or other device. For monaural output use the L/MONO jack (p. 21).

8. BALANCED OUT L/R Jacks

Connectors for balanced output of the audio signals. Connect to mixers and other such gear (p. 21).

9. PHONES Jack

A set of headphones can be connected to this jack (p. 21).

Even when headphones are connected, sound will still be output from the OUTPUT jacks.

Installing the Wave Expansion Board

Up to two optional Wave Expansion Boards (SRX Series) can be installed in the RD-700SX.

Wave Expansion Boards store Wave data, Patches, and Rhythm Sets, and by equipping the RD-700SX with these boards, you can greatly expand your sound palette.

For more information about the wave expansion board tones, refer to the patch list included with the wave expansion board. However, some of the tone names may be displayed differently on the RD-700SX. Check 36page as you refer to the tone names.

Cautions When Installing an Wave Expansion Board

- To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the board.
  - Before you touch the board, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
  - When handling the board, grasp it only by its edges. Avoid touching any of the electronic components or connectors.
- Use a Philips screwdriver that is suitable for the size of the screw (a number 2 screwdriver). If an unsuitable screwdriver is used, the head of the screw may be stripped.
- To remove a screw, rotate the screwdriver counter-clockwise. To tighten a screw, rotate the screwdriver clockwise.

- Be careful that the screws you remove do not drop into the interior of the RD-700SX.
- Do not leave the rear panel cover removed. After installation of the Wave Expansion Boards is complete, be sure to replace the cover.
- Do not touch any of the printed circuit pathways or connection terminals.
- Never use excessive force when installing a circuit board. If it doesn't fit properly on the first attempt, remove the board and try again.
- When circuit board installation is complete, double-check your work.
- Always turn the unit off and unplug the power cord before attempting installation of the circuit board.
- Install only the specified circuit board(s) (SRX Series). Remove only the specified screws.
- Be careful not to cut your hand on the edge of the installation bay.

Install the Wave Expansion Boards after removing the rear panel cover.

There are two slots (A and B) into which a board can be installed. Specify which slot's board is to be used by pressing EXPANSION [A] or [B] on the front panel when using waves, tones, or Rhythm Sets from the wave expansion boards.

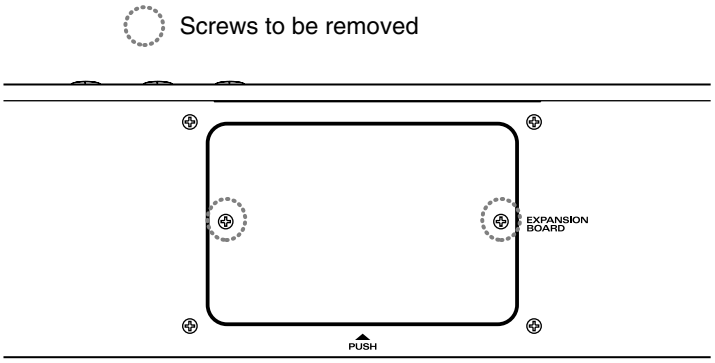
Installing SRX Series Boards

1

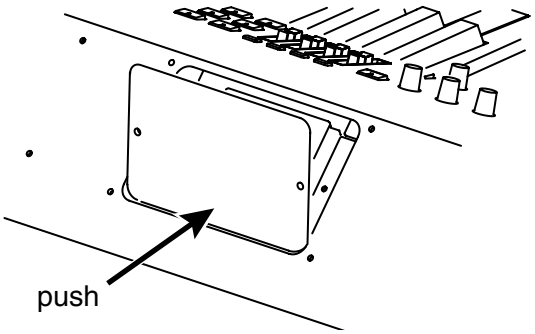
Before installing any Wave Expansion Board, turn off the power on the RD-700SX and all devices connected to it.

2

Refer to the following illustration of the RD-700SX's rear panel, and remove the screws indicated. Then, remove the cover.

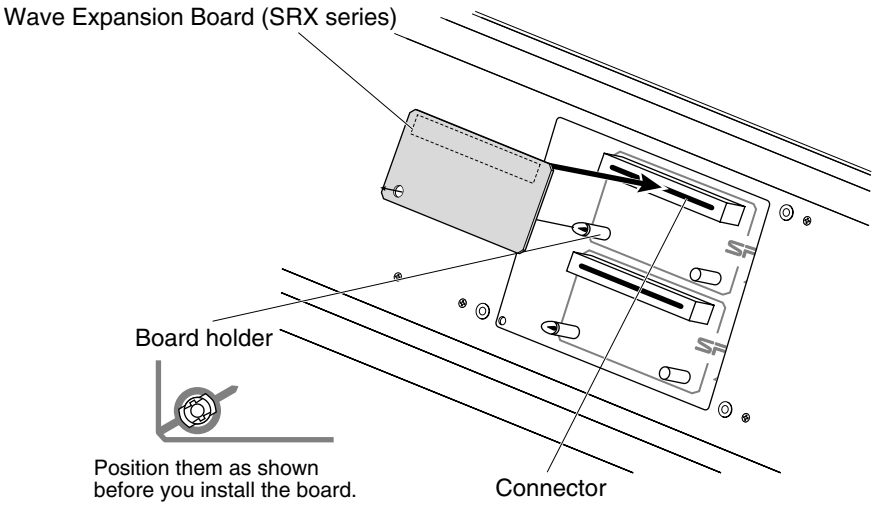


You can remove the cover easily by pressing on the lower part of the cover (above the PUSH mark).



3

Insert the Wave Expansion Board connector into a connector for an SRX Series slot (SRX A or SRX B), while simultaneously inserting the board holders into the holes in the Wave Expansion Board.

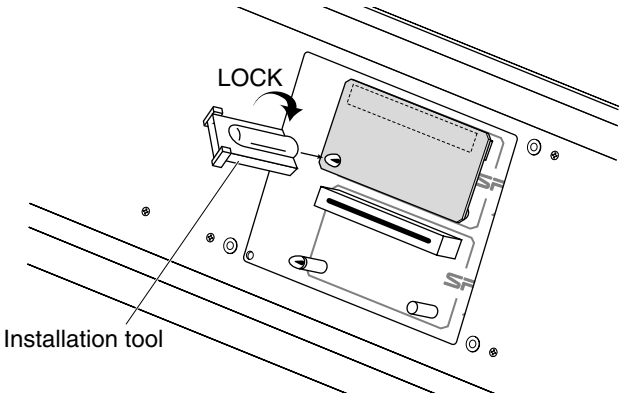


NOTE

If the same type of Wave Expansion Board is installed in the SRX A slot and the SRX B slot, it will only be possible to select data from the Wave Expansion Board that was installed in the SRX A slot.

4

Use the Installation Tool supplied with the Wave Expansion Board to turn the holders in the LOCK direction, so the board will be fastened in place.

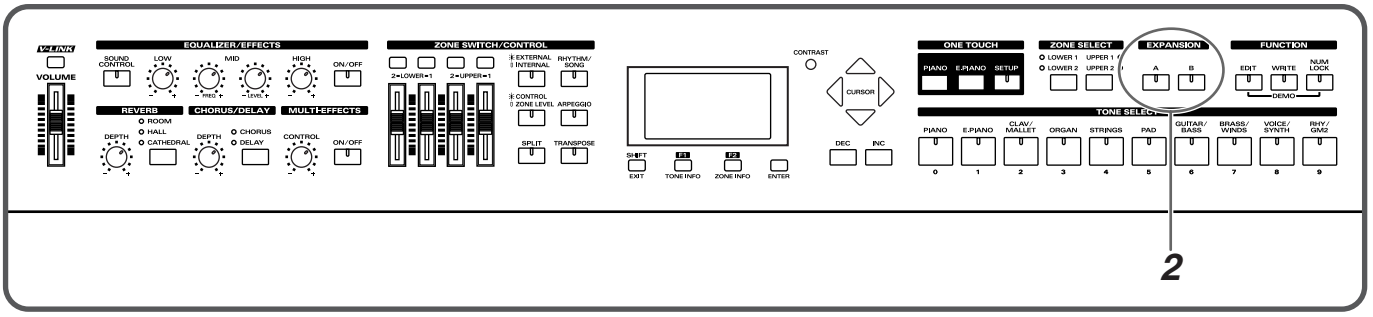


5

Use the screws that you removed in step 2 to fasten the cover back in place.

Checking the Installed Wave Expansion Boards

After installation of the Wave Expansion Boards has been completed, check to confirm that the installed boards are being recognized correctly.



1

Turn on the power, as described in "Turning On the Power" (p. 23).

2

The name of the installed wave expansion board is displayed for as long as EXPANSION [A] or [B] is held down.

The number of tones and Rhythm Sets contained in the expansion board is displayed.

The example here depicts what you would see if the SRX-02 "Concert Piano" Wave Expansion Board were installed in the SRX A slot.

```
Expansion Board Info
 A SRX-02ConcertPno
   Tone:    50
   Rhythm:   0
 B ----------------
   Tone:   ---
   Rhythm:   -
```

By releasing the button, you go back to the previous screen.

"Selecting Wave Expansion Board Tones" (p. 35).

NOTE

If "------" appears next to the name of the slot in which the board was installed, it may be that the wave expansion board is not being recognized properly. Use the procedure in **"Turning Off the Power"** (p. 24) to turn the power off, then reinstall the wave expansion board correctly.

Installation de la carte d'extension Wave(French language for Canadian Safety Standard)

Vous pouvez installer jusqu'a 2 cartes d'extension optionnelles dans le RD-700SX. Ces cartes d'extension memorisant des donnees Wave, des morceaux et des ensembles rythmiques, elles vous permettront d'augmenter considerablement le timbre.
Pour de plus amples renseignements sur les tonalités de la carte d'expansion Wave, se reporter à la liste des timbres incluse avec la carte. Toutefois, certains des noms de tonalités peuvent s'afficher différemment sur le RD-700SX. Consulter la p. 36 pour les noms des tonalités.

Precautions lors de l'installation de la carte d'extension Wave

- Veuillez suivre attentivement les instructions suivantes quand vous manipulez la carte afin d'éviter tout risque d'endommagement des pièces internes par l'électricité statique.
  - Toujours toucher un objet métallique relié à la terre (comme un tuyau par exemple) avant de manipuler la carte pour vous décharger de l'électricité statique que vous auriez pu accumuler.
  - Lorsque vous manipulez la carte, la tenir par les côtés. Évitez de toucher aux composants ou aux connecteurs.
- Utiliser un tournevis cruciforme correspondant a la taille de la vis (un tournevis numero 2). En cas d'utilisation d'un tournevis inapproprie, la tete de la vis pourrait etre endommagee.
- Pour enlever les vis, tourner le tournevis dans le sens contraire des aiguilles d'une montre. Pour resserrer, tourner dans le sens des aiguilles d'une montre.
- Veillez a ne pas laisser tomber de vis dans le chassis du RD-700SX.
- Ne pas laisser la plaque arriere detachee. Apres avoir installe la ou les carte(s) d'extension, bien remettre la plaque en place.

- Ne pas toucher aux circuits imprimés ou aux connecteurs.
- Ne jamais forcer lors de l'installation de la carte de circuits imprimés. Si la carte s'ajuste mal au premier essai, enlevez la carte et recommencez l'installation.
- Quand l'installation de la carte de circuits imprimés est terminée, reverifiez si tout est bien installé.
- Toujours éteindre et debrancher l'appareil avant de commencer l'installation de la carte.
- N'installez que les cartes de circuits imprimes specifiees (SRX Series). Enlevez seulement les vis indiquees.
- Installer les cartes d'extension apres avoir enleve la plaque arriere.
- Veillez a ne pas vous couper les doitgs sur le bord de l'ouverture d'installation.

Avant d'installer la carte d'expansion Wave, retirer le panneau arrière.
Il y a deux emplacements (A et B) dans lesquels une carte peut être installée. Spécifier l'emplacement à utiliser en appuyant sur EXPANSION [A] ou [B] sur le panneau avant lors de l'utilisation d'ondes, de tons ou de groupes rythmiques à partir des cartes d'expansion Wave.

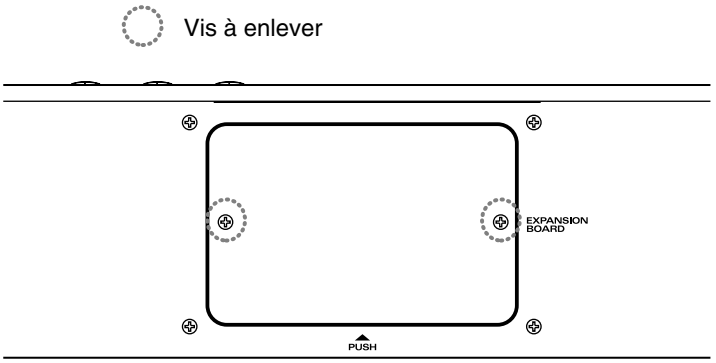
Installer les cartes de serie SRX

1

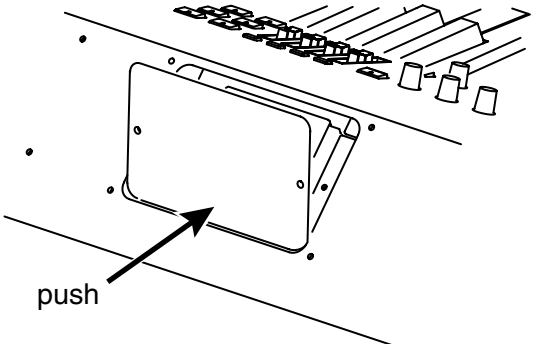
Avant d'installer une carte d'extension Wave, eteindre tous les appareils relies au RD-700SX.

2

Detacher la plaque arriere en enlevant les vis indiquees sur le schema suivant.

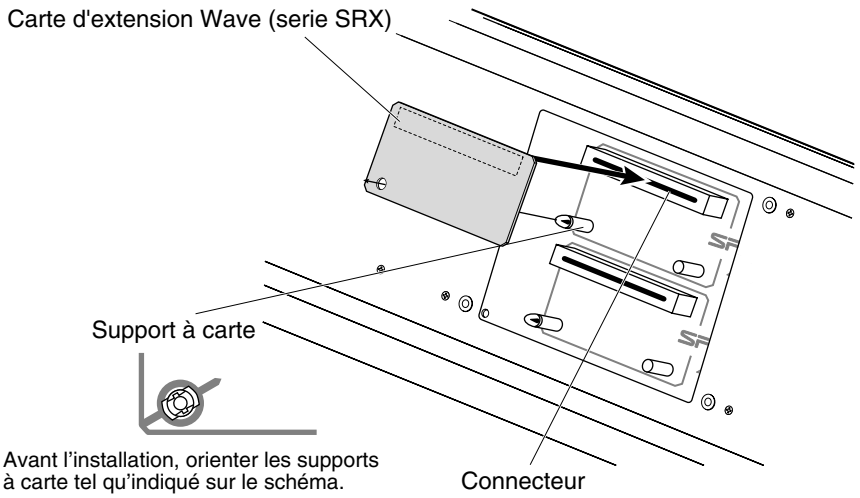


Il est facile d'enlever le couvercle: il suffit d'appuyer sur la partie inférieure du couvercle (au-dessus du symbole PUSH).



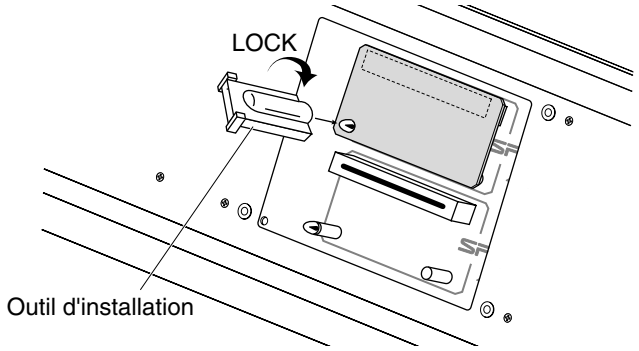
3

Inserer le connecteur de la carte dans un des creneaux pour la serie SRX (SRX A, SRX B) tout en enfoncant les supports a carte dans les trous de celle-ci.



4

Pour tourner les supports en position LOCK (verrouille), utilisez l'outil d'installation de la carte d'extension fournie a cet effet. De cette facon, la carte sera bien fixee a sa place.



5

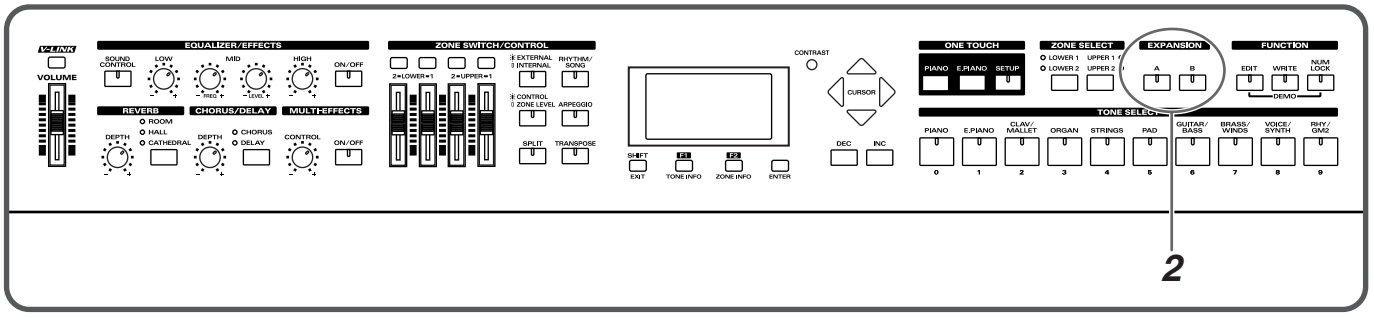
Reposez le couvercle en remettant les vis enlevees (comme specifie) a l'etape 2.

NOTE

Si la meme sorte de carte d'extension Wave est installee dans les creneaux SRX A et SRX B, il ne sera possible de selectionner que les donnees de la carte d'extension Wave installee dans le creneau SRX A.

Verification des cartes d'extension audio apres installation

Lorsque l'installation des cartes d'extension audio est terminee, proceder a une verification pour s'assurer que l'ordinateur les identifie correctement.



1

Mettre sous tension de la facon decrite sous "Turning On the Power" (p. 23).

2

Le nom de la carte d'expansion Wave installée s'affiche tant que la touche EXPANSION [A] ou [B] est tenue enfoncée.

Le nombre de tonalités et de groupes rythmiques compris sur la carte d'expansion s'affiche.

L'exemple montre ce qui serait affiche si la carte d'extension audio SRX-02 "Concert Piano"etait installee dans la fente SRX A.

```
Expansion Board Info
A SRX-02ConcertPno
  Tone:    50
  Rhythm:   0
B ----------------
  Tone:   ---
  Rhythm:   -
```

Lorsque vous le relacherez, vous serez ramene a l'ecran precedent.

"Selecting Wave Expansion Board Tones" (p. 35).

NOTE

Si "----------" est affiche a cote du nom de la fente dans laquelle la carte est installee, il est possible que la carte d'extension audio installee ne soit pas reconnue correctement. Mettre hors tension de la facon decrite sous **"Turning Off the Power"** (p. 24) et reinstaller correctement la carte d'extension audio.

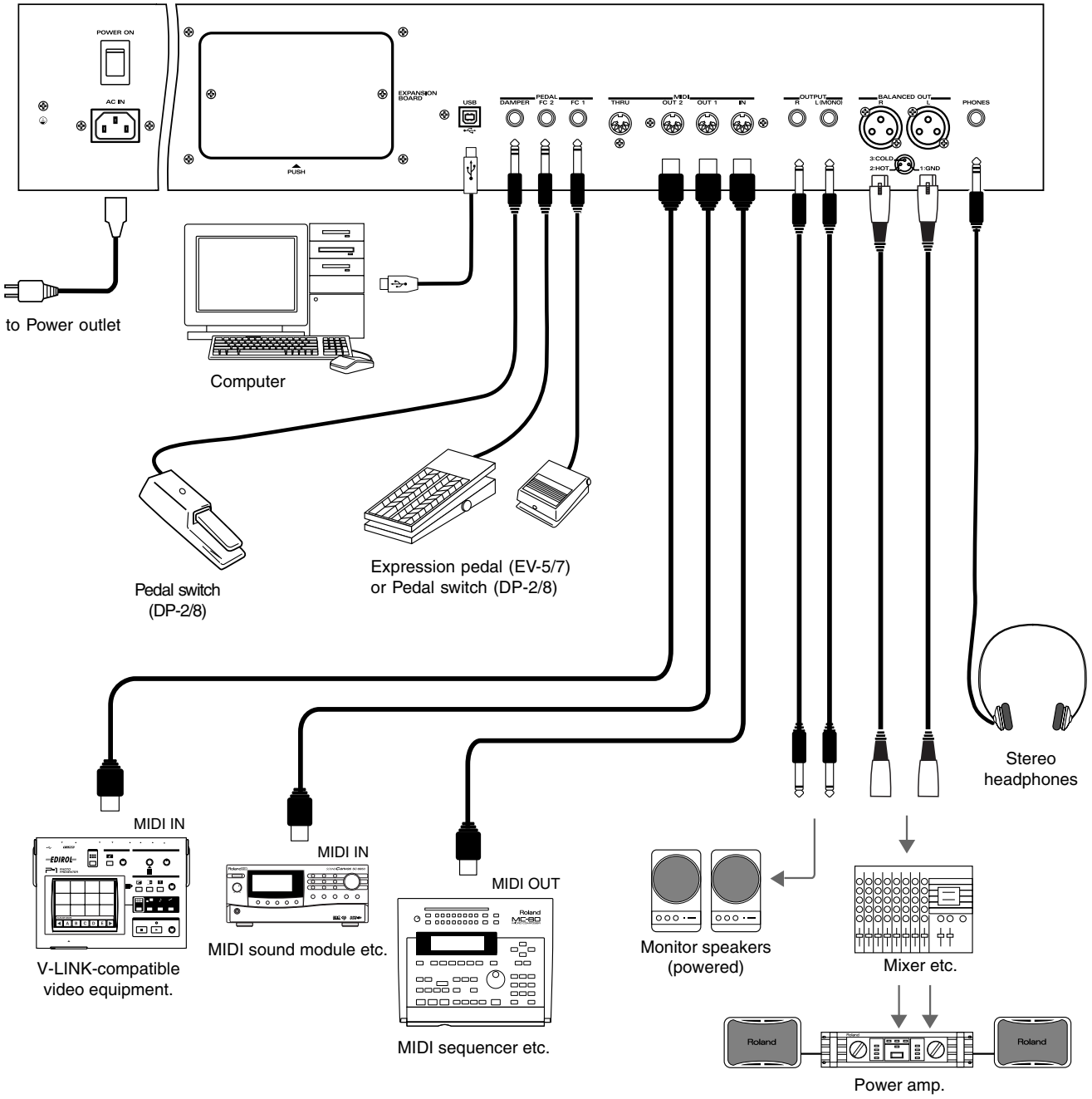
Connecting the RD-700SX to External Equipment

The RD-700SX is not equipped with an amplifier or speakers. In order to produce sound, you need to hook up audio equipment such as a monitor speaker or a stereo set, or use headphones.

* *Audio cables, MIDI cables, USB cables, headphones, and expression pedals are not included. Consult your Roland dealer if you need to purchase accessories such as these.*

NOTE

To prevent malfunction and/ or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.



1

Before you begin making connections, confirm the following.

Is the volume level of the RD-700SX or connected amp turned all the way down?

Is the power to the RD-700SX or connected amp turned off?

2

Connect supplied power cord to the RD-700SX, and plug the other end into an AC power outlet.

3

Connect the RD-700SX and the external device.

Use audio cables to connect audio equipment, such as an amp or speakers. Use MIDI cables to connect MIDI devices. Use USB cables to connect computer.

If you are using headphones, plug them into the PHONES jack.

Connect pedal switches or expression pedals as necessary.

NOTE

Use Stereo headphones.

NOTE

Use only the specified expression pedal (EV-5/7; sold separately). By connecting any other expression pedal, you risk causing malfunction and/or damage to the unit.

Connecting Pedals

Connect the pedal included with the RD-700SX to one of the PEDAL jacks.

When connected to the DAMPER jack, the pedal can be used as a damper pedal.

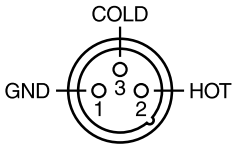
Connecting the pedal to the FC-1 or FC-2 jack allows you to assign a variety of functions to the pedal (p. 70, p. 85).

NOTE

Set the switch on the included pedal to "Continuous" when the pedal is connected.

About the Output Jacks

This instrument is equipped with balanced (XLR) type jacks. Wiring diagrams for these jacks are shown below. Make connections after first checking the wiring diagrams of other equipment you intend to connect.



Turning the Power On and Off

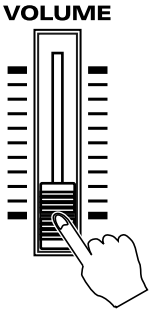
Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

Turning On the Power

1

Before you switch on the power, move the volume down all the way by moving the VOLUME Slider.

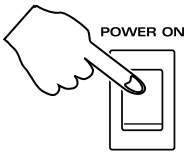
Also completely turn down the volume of any connected audio device and other equipment.



2

Press the upper portion of the [POWER ON] switch on the back of the RD-700SX to turn on the power.

The unit is powered up, and the display's backlighting comes on.



3

Turn on the power to connected external devices.

4

Adjust the volume of the connected external device.

5

Adjust the RD-700SX's volume to obtain the proper volume level.

NOTE

In the unlikely event the power is turned off or cut off while Factory Reset (p. 22) is in progress, the data may become corrupted, and it may require additional time for the unit to start up the next time.

NOTE

To prevent incorrect functioning of the Pitch Bend/Modulation Lever (p. 44), refrain from touching the lever while the power to the RD-700SX is turned on.

NOTE

This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

Turning Off the Power

1

Before you switch on the power, move the volume down all the way by moving the VOLUME Slider.

Also completely turn down the volume of any connected audio device and other equipment.

2

Turn off the power to connected external devices.

3

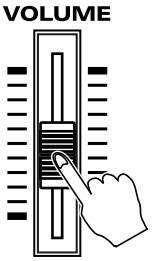
Press the lower portion of the [POWER ON] switch on the back of the RD-700SX.

The power is switched off.

NOTE

If you need to turn off the power completely, first turn off the POWER switch, then unplug the power cord from the power outlet.
Refer to **"Power Supply"** (p. 5).

Adjusting the Volume



1

Adjust the volume using the VOLUME slider.

Move the slider up to increase the volume, or down to lower it.

Also adjust the volume of the connected device to an appropriate level.

Restoring the Factory Settings (Factory Reset)

When using the RD-700SX for the first time, start by returning the settings to their factory defaults so that the RD-700SX operates as described in the procedures in the owner's manual.

Notes

Never turn off the power during Factory Reset (while "Now, Executing" appears in the display).

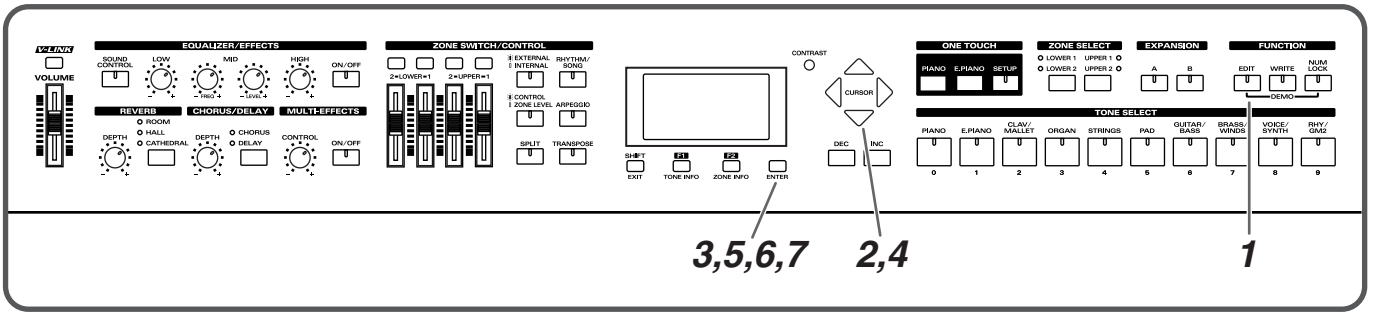
Turning off the power while Factory Reset is in progress may result in corrupted internal data and may prevent the power from being turned on again. If you have confirmed that the internal data has been lost, or if a similar problem exists, consult the retailer from whom you purchased the instrument, or the nearest Roland Service Center. Note, however, that Roland assumes no liability, including compensation, for consequences arising from any loss of data.

NOTE

Executing this operation deletes the Setup settings (p. 56). If you want to keep any internally stored content, use the "Bulk Dump (Bulk Dump SETUP)" procedure to save the data to an external sequencer (p. 99).

NOTE

When making USB connections, be absolutely sure to disconnect the USB cable before starting.

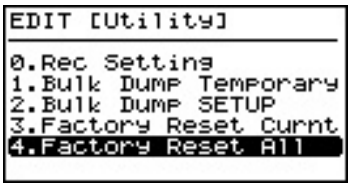


1 **Press [EDIT], getting the indicator to light.**

The Edit Menu screen appears.

2 **Press CURSOR [▼] to select "9.Utility."**

3 **Press [ENTER] to display the Utility screen.**



4 **Press CURSOR [▼] to select "Factory Reset All."**

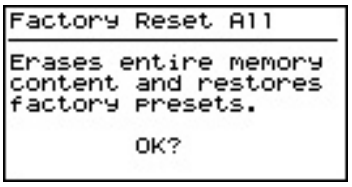
MEMO

Instead of selecting with the CURSOR, you can press TONE SELECT [9] to display the Utility Edit screen directly.

5

Press [ENTER].

A screen like the one shown below appears.

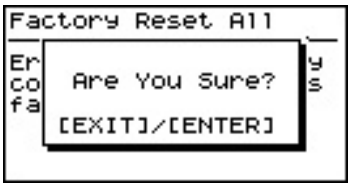


To cancel the Factory Reset, press [EXIT].

6

Press [ENTER].

The confirmation message appears.



To cancel the Factory Reset, press [EXIT].

7

Press [ENTER] once again to start the Factory Reset operation.

During the execution, "Executing... Don't Power OFF" appears in the display.

After the Factory Reset operation is finished, the ONE TOUCH screen will appear.

8

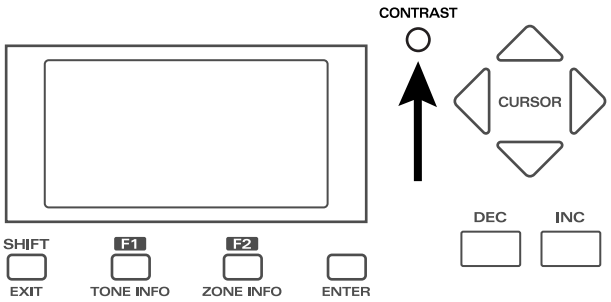
Turn off the power to the RD-700SX, then turn it on again.

You can also restore only part of the setting to their factory status. Refer to **"Restoring the settings to the factory condition (Factory Reset)"** (p. 100).

Adjusting the Display Contrast (LCD Contrast)

The characters in the display may be difficult to view immediately after turning on the power or after extended use; this may also be because of where and how the display is situated.

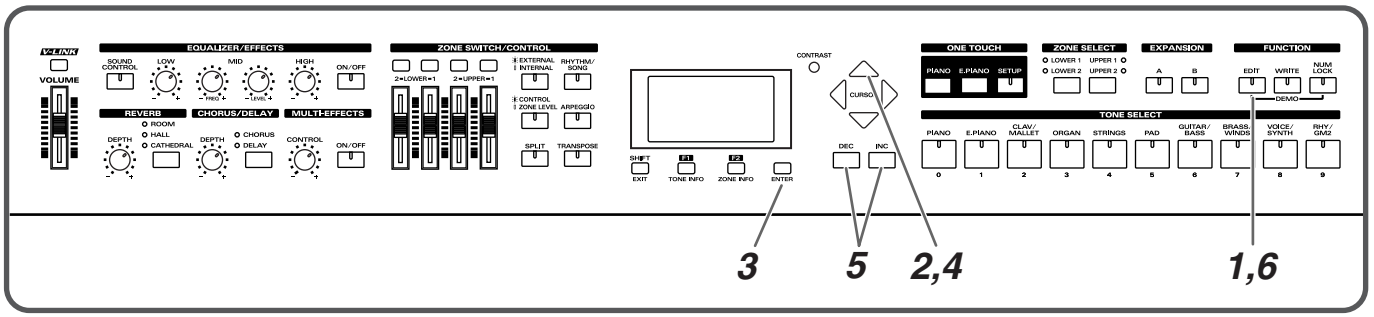
In such instances, adjust the display contrast by turning the CONTRAST knob on the front panel.



Tuning to Other Instruments' Pitches (Master Tune)

For a cleaner ensemble sound while performing with one or more other instruments, ensure that each instrument's basic pitch is in tune with that of the other instruments. In general, the tuning of an instrument is indicated by the pitch in Hertz (Hz) of the middle "A" note.

This matching of other instruments' basic reference pitches is called "tuning."



1

Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

```
=== EDIT MENU ===
0.System
1.Key Touch
2.Control
3.Effects
4.Sound Control
```

2

Press CURSOR [▲] to select "0.System."

3

Press [ENTER] to display the Edit screen.

```
EDIT [System]
Master Tune:     440.0Hz
Master Volume:       120
EQ Mode:           SETUP
Pedal Mode:        SETUP
Tone Remain:          ON
 WRITE
```

4

Press CURSOR [▲] to move the cursor to the "Master Tune" parameter.

5

Press [INC]/[DEC] to select the value (415.3–440.0–466.2).

6

Press [EDIT] to make the indicator go dark.

You are returned to the Tone screen.

MEMO

You can directly display the System Edit screen by pressing TONE SELECT [0] instead of selecting with CURSOR.

MEMO

For faster value increases, keep [INC] pressed down and press [DEC]. For decreasing value faster, keep [DEC] pressed down and press [INC].

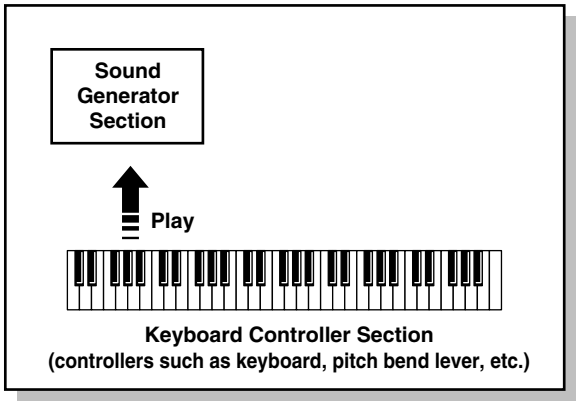
MEMO

If you want to save this setting, press [F1(WRITE)]. Settings saved in the RD-700SX are not deleted even when the power is turned off.

Overview of the RD-700SX

Basic Organization of the RD-700SX

The RD-700SX can be divided into two sections: a keyboard controller section and a sound generator section. The two sections are connected internally by means of MIDI.



Keyboard Controller Section

This section includes the keyboard, the Pitch Bend/Modulation Lever, the panel knobs, the sliders, and any pedal connected to the rear panel. Actions such as pressing and releasing of keys on the keyboard, depressing a pedal, and so forth, are converted to MIDI messages and sent to the sound generator section, or to an external MIDI device.

Sound Generator Section

The sound generator section produces the sound. Here, MIDI messages received from the keyboard controller section or external MIDI device are converted to musical signals, which are then output as analog signals from the OUTPUT and PHONES jacks.

Units of Sound

When using the RD-700SX, you will notice that a variety of different categories come into play when working with sounds. What follows is a simple explanation of each sound category.

Tone

The individual sounds used when playing the RD-700SX are referred to as "Tones." The RD-700SX provides 488 types of Tones. Tones are assigned to each part.
The Tones also include various groups of percussion instrument assembled into "Rhythm Sets." Each key (note number) of a Rhythm Set will produce a different percussion instrument.

Part

A sound generator of this type which can control multiple sounds using one device is referred to as a multitimbral sound generator. The RD-700SX contains a multitimbral sound generator capable of playing sixteen Tones simultaneously. "Parts" are where Tones that are created when the RD-700SX is used as a sound generator are assigned. Since different Tones can be assigned to each of the Parts and controlled individually, you can have multiple Tones play simultaneously, divide the keyboard into separate ranges and have different Tones sound in the different parts (Split), and enjoy playing ensemble performances.
The sixteen Parts played by the RD-700SX's internal sound generator are referred to as "Internal Parts."

Zone

The RD-700SX features four Parts (UPPER1, UPPER2, LOWER1, and LOWER2) that you can use for freely controlling the Internal Parts with the RD-700SX's buttons and keyboard. These four Parts that are used for controlling the Internal Parts are collectively known as the "INTERNAL Zone." Four of the sixteen Internal Parts are assigned to the INTERNAL Zone for control (the RHYTHM Part is fixed at Part 10).
Furthermore, you can freely control external MIDI sound generators with the RD-700SX in the same manner as with the INTERNAL Zone. You can likewise control the external MIDI sound generator with the four Parts (UPPER1, UPPER2, LOWER1, and LOWER2), with this group of four Parts being referred to as the "EXTERNAL Zone." The external MIDI sound generator is assigned to these three Parts for control (the RHYTHM Part can also be partially set).

Basic Operation

Main Screens

ONE TOUCH Screen

When ONE TOUCH [PIANO] or [E.PIANO] is pressed, setting the RD-700SX to the optimal status for piano performances, this screen is displayed.

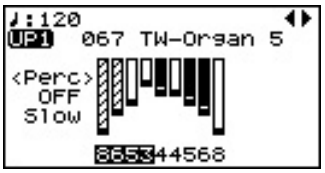
The Tone Screen (Basic Screen)

The names of the Tones currently selected for the INTERNAL Zone are displayed. This is the screen that is ordinarily displayed.
You can change the INTERNAL Zone (UPPER1, UPPER2, LOWER1, and LOWER2) Tones and tempo.

The Tone Wheel Screen

In the Tone screen, when any ORGAN Tone "Tone Wheel 1-10" is selected for any of the INTERNAL Zone, this screen is displayed when CURSOR [◀] is pressed. The mode when this screen is displayed is called "Tone Wheel mode," and while in this mode you can simulate the creation of sounds using an organ's harmonic bars (p. 53).

Pressing CURSOR [▶] when this screen is displayed returns you to the Tone screen.



The Setup Screen

The currently selected Setup is displayed (p. 56).

Pressing CURSOR [◀] when the Tone screen or Tone Wheel Screen is displayed switches the RD-700SX to this screen. You can also have this screen displayed by pressing [SETUP]. You can change the Setups (p. 46, p. 48, p. 50).

Pressing CURSOR [▶] when this screen is displayed returns you to the Tone screen or Tone Wheel Screen.

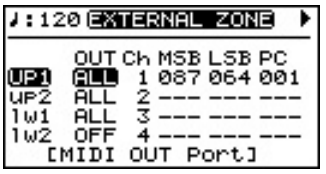
The Rhythm/Song/Arpeggio Screen

Pressing CURSOR [▶] when the Tone screen is displayed switches the RD-700SX to this screen.
You can change Song, Rhythm patterns, Arpeggio patterns, and the tempo.

Pressing CURSOR [◀] when this screen is displayed returns you to the Tone screen.

EXTERNAL Screen

When [EXTERNAL/INTERNAL] is pressed, the button's indicator lights up, and the RD-700SX switches to the mode enabling it to control an external MIDI sound generator. The status of this button determines whether the RD-700SX's buttons are used to control the INTERNAL Zone ([EXTERNAL/INTERNAL] unlit), or to control the EXTERNAL Zone ([EXTERNAL/INTERNAL] lit).
In addition, you can make detailed settings for the MIDI messages to be transmitted to the external sound generator (p. 61).



Special Indications

88 KEYS

A mark is displayed to the right of the tone name when you select an 88-key multisampled piano tone in the Tone screen.

A mark is displayed to the left of the tone name when you select "TW-Organ 1–10" in the Tone screen.

Pressing CURSOR [◀] while this mark is displayed brings up the Tone Wheel screen (p. 53).

M:

With Clock Source (p. 81) set to MIDI, the tempo indication changes to "M:" for each screen.
The tempo can be changed with the external MIDI devices when this mark is indicated.

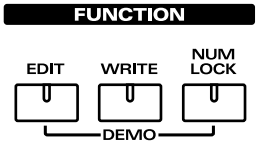
EQ

With EQ Mode (p. 80) set to SYSTEM, this mark appears upper right on the screen.
Equalizer settings do not change when Setups are switched while this mark is indicated.

PD

With Pedal Mode (p. 80) set to "SYSTEM," this mark appears on the upper right of the screen.
Pedal settings do not change when Setups are switched while this mark is indicated.

About the Function Buttons



[EDIT]

By pressing [EDIT] to make the indicator light, you can enter "Edit mode." In Edit mode you can make detailed settings for various functions.
You can exit Edit mode by pressing [EDIT], extinguishing its indicator.

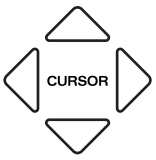
[WRITE]

Stores the current settings to "Setup" (p. 58).

[NUM LOCK]

When [NUM LOCK] is pressed, the button's indicator lights up, enabling input of numerical values using the TONE SELECT buttons. The button indicators automatically light according to the values set.

About the CURSOR Buttons

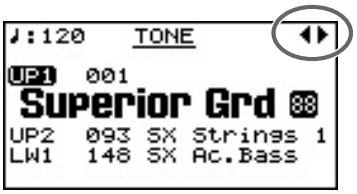


The CURSOR buttons are used for switching screens, and for moving to an item whose setting you want to change (by moving the cursor).

Moving Between Display Pages

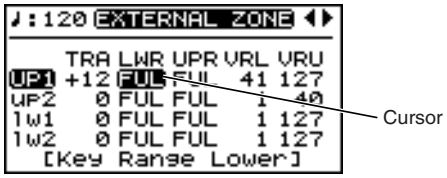
When arrow symbols ("◀" and "▶") appear at the upper right of the display screen, it indicates that there are additional pages in the directions shown by the arrows.

You can switch screens with CURSOR [◀] and [▶].



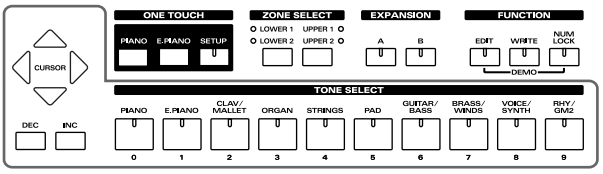
Navigating Among Items To Be Set (CURSOR)

When more than one parameter is present in a screen, the name and value of the parameter to be changed is shown with a box around it. This box is referred to as the "cursor." The cursor is moved with the CURSOR buttons.



Additionally, when multiple parameters are presented horizontally in a row, as shown in the EXTERNAL screen, you can get the cursor to move more rapidly by holding down the CURSOR button that points in the direction you want the cursor to move while you also press the CURSOR button that points in the opposite direction.

Changing the Settings Values



When changing settings values, you can use [DEC] and [INC], or the TONE SELECT buttons (numeric keys).

[DEC], [INC]

Pressing [INC] increases the value, and [DEC] decreases it. Keep the button pressed for continuous adjustment. For faster value increases, keep [INC] pressed down and press [DEC]. For decreasing value faster, keep [DEC] pressed down and press [INC].
Simultaneously pressing [DEC] and [INC] sets that parameter to the standard default value or switches it off.

TONE SELECT Buttons (Numeric Keys)

When [NUM LOCK] is on (lit), numerical values can be input directly using the TONE SELECT buttons, which then serve as [0]–[9] numeric keys. When you enter the number, the value will blink. This indicates that the value has not yet been finalized. To finalize the value press [ENTER].
With some parameters, [NUM LOCK] may come on automatically, allowing you to input numerical values directly with the TONE SELECT buttons.

MEMO

Only numerical values can be entered using the numeric keys. To switch the positive (+) or negative (-) signs for numerical values and make continuous changes in the numerical values, press [INC] or [DEC].

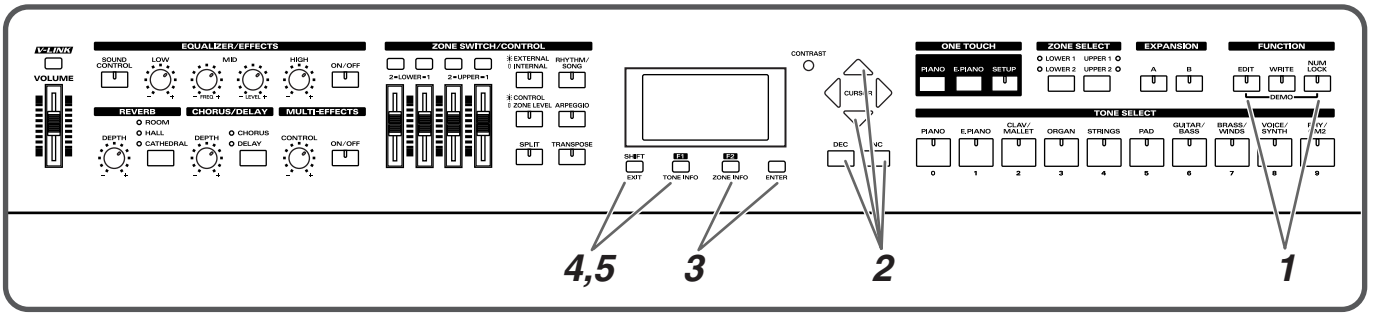
Listening to the Demo (DEMO PLAY)

Here's how to listen to these songs.
The RD-700SX features the internal demo songs that exhibit the special capabilities of the instrument.

No.	Song Name	Composer/Copyright	
01.	Take a Break	Scott Tibbs	© 2004 Roland Corporation
02.	Superior Grand	Scott Tibbs	© 2004 Roland Corporation
03.	Everything Cool	Scott Tibbs	© 2004 Roland Corporation
04.	Tone Preview	Scott Tibbs	© 2004 Roland Corporation

Demo song 04 "Tone Preview" makes effective use of the internal tones. A total of ten pieces are offered, one for each TONE CATEGORY.

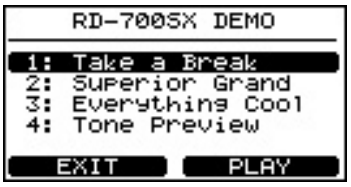
NOTE
All rights reserved. Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.



* *When demo songs are playing back, all settings are switched to their status at the time the RD-700SX's power was turned on. Store any arrangements of settings that you want to keep in Setup (p. 58).*

1

Hold down [NUM LOCK] and press [EDIT].
The Demo screen appears.



2

Press CURSOR [▲] / [▼] or [INC] / [DEC] to select the song that you wish to hear.

3

Press CURSOR [F2(PLAY)] or [ENTER] to start playback of the demo song.
Press any one of the TONE SELECT buttons, and playback begins from the demo song corresponding to the button pressed.
When all songs have been played, playback will return to the first song and resume.
Pressing a TONE SELECT button during playback stops the song being played, and playback of the newly selected song begins.

4

Press CURSOR [EXIT] or [F1(MENU)] to stop a song during playback.

5

Press [EXIT] or [F1(EXIT)] while the song is stopped to finish with the Demo screen.
You are returned to the Tone screen.

NOTE
No data for the music that is played will be output from the MIDI OUT connector.

MEMO
Regardless of whether the song is playing or stopped, pressing ONE TOUCH [PIANO] or [E.PIANO] ends the demo and returns the original screen to the display.

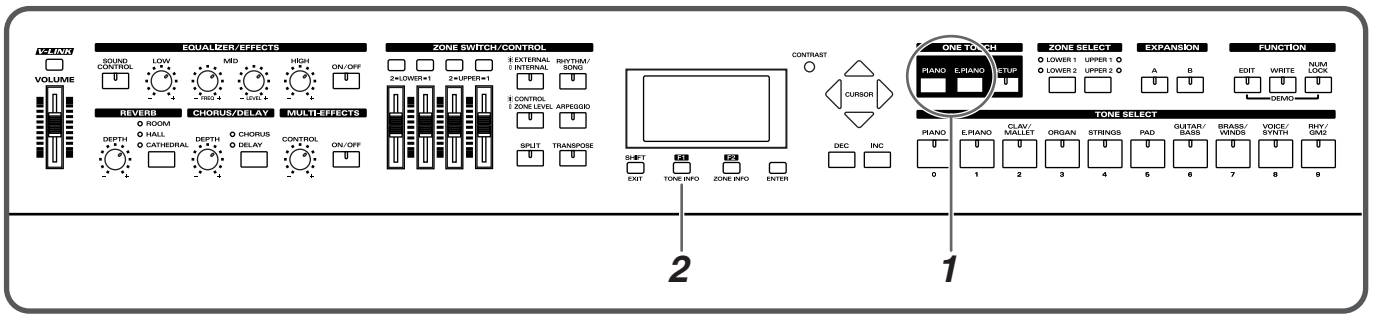
Performing with the Keyboard

Piano Performances (ONE TOUCH)

Now, try performing with the piano.

With the RD-700SX, you can call up the optimal settings for piano performances with the press of a single button.

You can also select your preferred tones and settings and store them to the instrument's buttons.



1

Press ONE TOUCH [PIANO] or [E.PIANO].

Pressing ONE TOUCH [PIANO] sets the entire keyboard to play with the piano tone.

Pressing ONE TOUCH [E.PIANO] sets the entire keyboard to play with the electric piano tone.

2

You can now press [F1] to switch the type.

Pressing [F1] toggles you between Types A and B.

With the RD-700SX, you can also make more detailed settings to make the sound even better match your favorite piano performances. You can store a total of four settings configurations, two each to [PIANO] and [E.PIANO].

Please refer to each as needed.

- Fine Adjustment of Piano Tones (Piano Edit) →p. 73
- Fine Adjustment of E.Piano Tones (E.Piano Edit) →p. 76
- Fine Adjustment of the Piano Touch Sense →p. 74

NOTE

Pressing ONE TOUCH [PIANO] or [E.PIANO] restores all of the settings except for the Piano Edit(p. 73) or Electric Piano Edit(p. 76) settings to their status at the time the power was turned on. If you want to preserve these settings, record them to a setup(p. 56).

MEMO

You can use CURSOR [▲]/ [▼] in the ONE TOUCH (PIANO) screen to adjust the amount the grand piano lid is opened.

Performing with a Variety of Tones

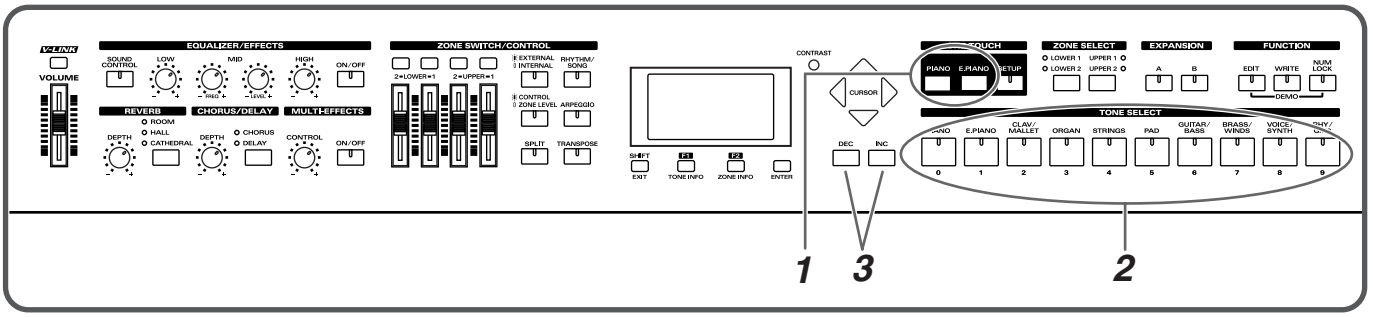
The RD-700SX provides 488 types of Tones.

Each one of these individual sounds is called a "tone."

Tones are assigned to the TONE SELECT buttons according to the tone category selected.

Try selecting and performing with a number of different tones.

"Tone List" (p. 146)



1

Press ONE TOUCH [PIANO] or [E.PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press any of the TONE SELECT buttons to select the tone category.

The TONE SELECT button for the selected category lights.

3

Press [INC]/[DEC] to select the tone.

Play the keyboard, and you will hear the selected tone.

The next time you choose this TONE SELECT button, the tone you're selected here is played.

MEMO

If multiple tones are playing, do not press the ONE TOUCH [PIANO] button, but instead select the zone containing the tone to be changed using the ZONE SELECT buttons. Refer to **"Changing the Tone for a Zone"** (p. 40).

NOTE

If [NUM LOCK] is turned on, the Tone Category cannot be selected with TONE SELECT button. For details, refer to p. 34.

NOTE

Tones selected with [RHY/GM2] are registered in the following order: "Rhythm Sets," "GM2 Rhythm Sets," and "GM2 Tones." Refer to the **"Tone List"** (p. 146).

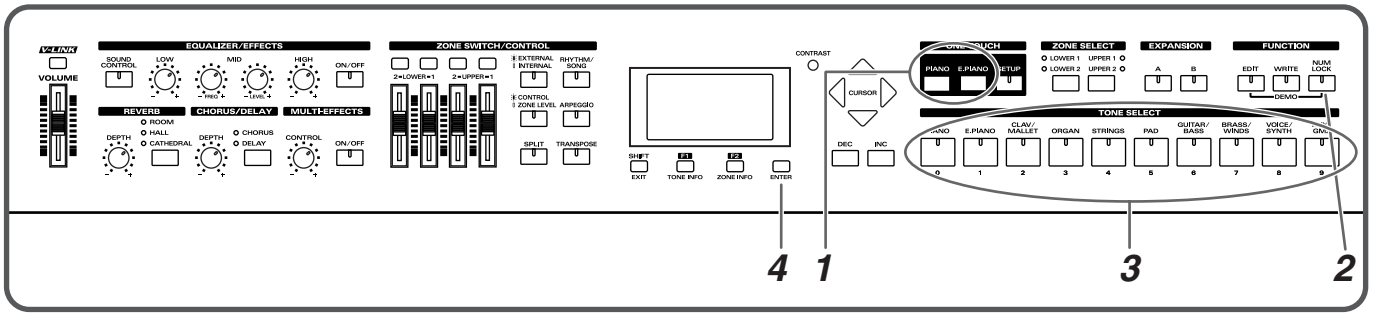
Specifying the Tone Number to Select a Tone ([NUM LOCK])

Each individual tone has a different tone number.

You can select tones with the TONE SELECT buttons by inputting numerals with these buttons to specify tone numbers.

Turn [NUM LOCK] on when inputting numerals with the TONE SELECT buttons.

"Tone List" (p. 146)



1

Press ONE TOUCH [PIANO] or [E.PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press [NUM LOCK] to make the indicator light.

This enables input of numerals with the TONE SELECT buttons.
The numerical value that can be entered with each button is indicated beneath the buttons.

3

Enter the tone number with the TONE SELECT buttons.

4

Press [ENTER].

The tone is set.
Play the keyboard, and you will hear the selected tone.
The TONE SELECT buttons included in the selected Tone numbers lit.

MEMO

If multiple tones are playing, do not press the ONE TOUCH [PIANO] button, but instead select the zone containing the tone to be changed using the ZONE SELECT buttons. Refer to **"Changing the Tone for a Zone"** (p. 40).

Playing a Rhythm Set

Among the tones that can be selected with the TONE SELECT buttons are Rhythm Sets, which are collections of a variety of percussion instrument sounds and special sound effects. Here's how to select a Rhythm Set and play percussion sounds.

1. **Press ONE TOUCH [PIANO] or [E.PIANO].**
2. **Press TONE SELECT [RHY/GM2].**
   If [NUM LOCK] is turned on at this time, the Rhythm Set Category cannot be selected. Turn [NUM LOCK] off.
3. **Press different keys to play different percussion instruments.**
4. **To select a different Rhythm Set, press [INC]/[DEC].**
   The combination of sounds assigned to the keyboard varies according to the Rhythm set. Refer to **"Rhythm Set List"** (p. 149).

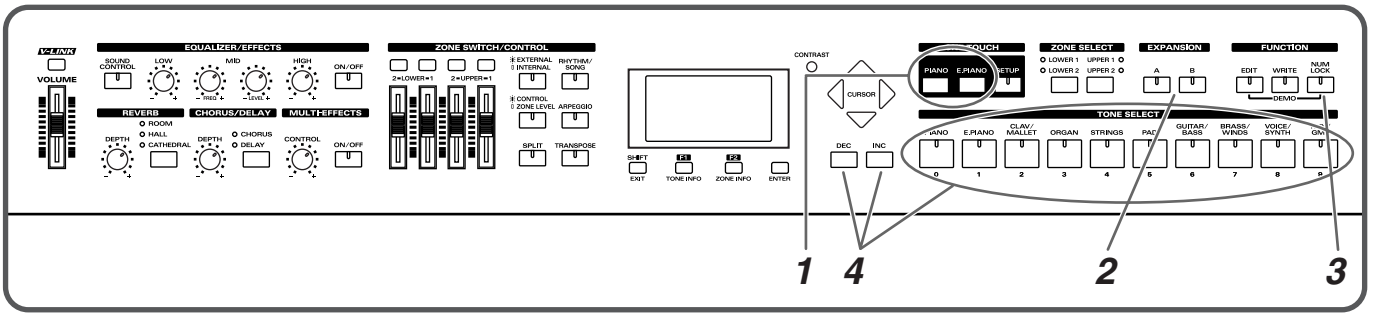
MEMO

Tones selected with [RHY/GM2] are registered in the following order: "Rhythm Sets," "GM2 Rhythm Sets," and "GM2 Tones." Refer to the **"Rhythm Set List"** (p. 149).

Selecting Wave Expansion Board Tones

Up to two optional wave expansion boards (SRX series) can be installed into the RD-700SX.

Use the following procedure when selecting tones stored on an wave expansion board.



1

Press ONE TOUCH [PIANO] or [E.PIANO].

This selects a single tone to be played over the entire keyboard.

2

Press EXPANSION [A] or [B] to make its indicator light.

If you hold down EXPANSION [A] or [B] for several seconds, the name of the installed wave expansion board appears in the display (p. 17).

3

Press [NUM LOCK] to turn on the button indicator.

4

Press [INC]/[DEC], or press the TONE SELECT buttons to select the Tone.

When using the TONE SELECT buttons to input Tone numbers, press [ENTER] afterwards to set the number.

5

Play the keyboard, and you will hear the selected tone.

MEMO

For instructions on installing the Expansion Board, refer to **"Installing the Wave Expansion Board"** (p. 15).

MEMO

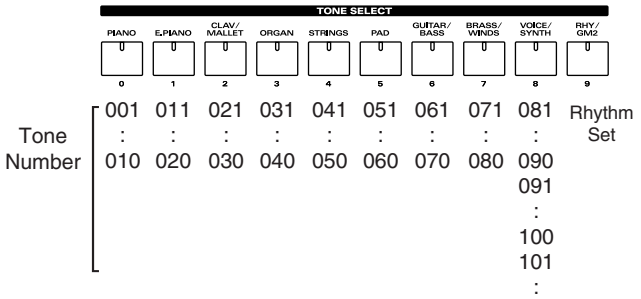
For more on the wave expansion board tone lists, refer to "Patch List" (for RD-700) and "Rhythm Set List" (for RD-700) in the SRX Series Owner's Manuals. However, some of the tone names may be displayed differently on the RD-700SX. Refer to **"Wave Expansion Board Tone Name Correspondence Table"** (p. 36).

Selecting Tones Without Pressing [NUM LOCK]

You can select tones stored on expansion boards with [NUM LOCK] off.

1. **Press EXPANSION [A] or [B] to make its indicator light.**
2. **Use the TONE SELECT buttons and [DEC]/[INC] to select the tone.**

   Wave expansion board tones are assigned to the TONE SELECT buttons as shown below.



3. **Play the keyboard, and you will hear the selected tone.**

Wave Expansion Board Rhythm Set Tone Numbers

When selecting a Wave Expansion Board Rhythm Set with the RD-700SX, the Wave Expansion Board Rhythm Sets are placed after Patches (called Tones on the RD-700SX).

Thus, when you want to specify a Wave Expansion Board Rhythm Set in terms of a Tone number, the Tone number can be arrived at by adding the desired Rhythm Set number in the Rhythm Set List to the last Patch number in the Patch List.

Wave Expansion Board Tone Name Correspondence Table

The RD-700SX displays certain SRX Series tone names as shown below. There may be displayed differently from Owner's Manuals of SRX series.

SRX-03 (STUDIO SRX)		SRX-05 (Supreme Dance)		SRX-07 (Ultimate Keys)		SRX-08 (Platinum Trax)	
No.	**Tone Name**	**No.**	**Tone Name**	**No.**	**Tone Name**	**No.**	**Tone Name**
005	Taxi EP	236	Tri EP	011	TouchEP SRX	378	Echo EP SRX
021	US EP	239	EP Chd Menu	013	Stage EP 2		
022	Studio EP	240	EP Maj 9th	015	80's EP		
023	All EP	241	EP Maj 11th	017	Padded EP		
024	Sens. EP	242	EP Min 11th	019	Sine EP		
				022	ClaviQ EP		
				024	70'EP Bs		
				033	The 70'EP		

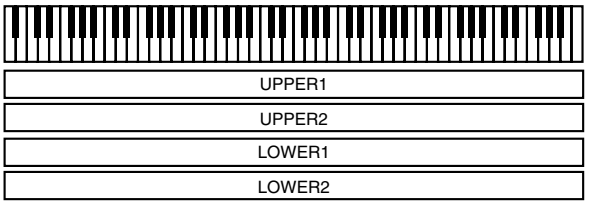
Playing Multiple Tones with the Keyboard

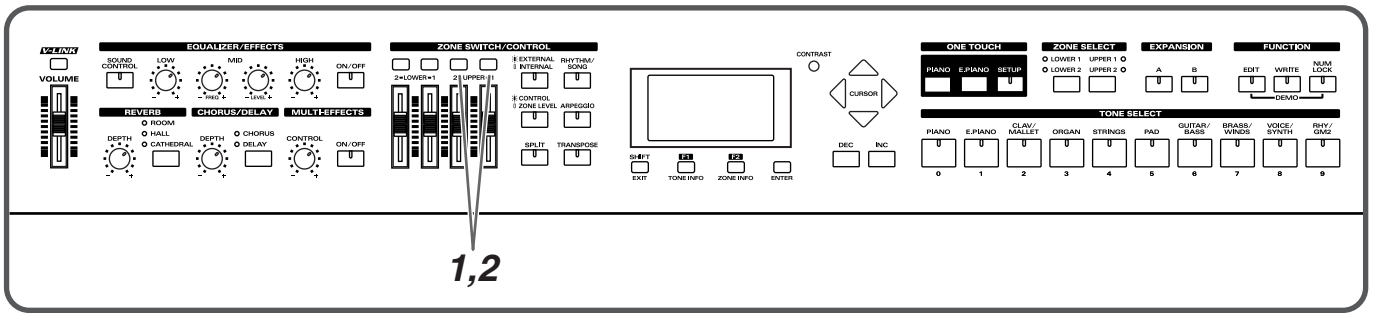
The RD-700SX features four Internal zones (UPPER 1, UPPER 2, LOWER 1, and LOWER 2), and one tone can be assigned to each of these zones.

You can perform using combinations of tones by turning each zone on or off. You can have multiple tones layered together at the same time, and even have different tones played in the left and right parts of the keyboard.

Performing with Layered Tones

You can perform with up to four layered tones applied to the entire keyboard.





1

Press PART SWITCH [UPPER1] and [UPPER2], getting the indicators to light.

Try fingering the keyboard.

The Tones for UPPER1 and UPPER2 are layered and played.

2

Press [UPPER2] once more, and the indicator light goes out.

The Tones for UPPER1 played.

Likewise, pressing [LOWER 1] and [LOWER 2] lets you then layer four tones.

Pressing Two TONE SELECT buttons Simultaneously

* *Keep [NUM LOCK] off when carrying out this operation.*

Even without pressing the ZONE SWITCH buttons, you can layer two tones by pressing two TONE SELECT buttons simultaneously.

For example, if you want to layer a piano sound with strings, together press both [PIANO] and [STRINGS].

The [UPPER1] and [UPPER2] indicator automatically light up, and when you begin playing the keyboard, the piano and strings sounds are layered together.

When this is done, the tone for the button that is pressed down first is assigned to UPPER1, and the other tone is assigned to UPPER2. The UP1 and UP2 Part names are both highlighted in the screen, with both Parts being selected.

Once you have selected two TONE SELECT buttons, pressing either TONE SELECT button then selects that tone as the [UPPER 1] tone. The [UPPER 2] indicator goes out, and that tone stops playing.

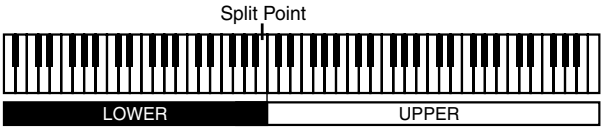
* *The above procedure is enabled only when the [UPPER 1] or [UPPER 2] ZONE SELECT button is selected.*

Playing Different Tones in Two Different Sections of the Keyboard ([SPLIT])

Such a division of the keyboard into right- and left-hand sections is called a "Split," and the key where the division takes place is called the "Split Point." While in Split Play, a sound played in the right side is called an "Upper Tone," and the sound played in the left side is called a "Lower Tone." The split-point key is included in the LOWER section.

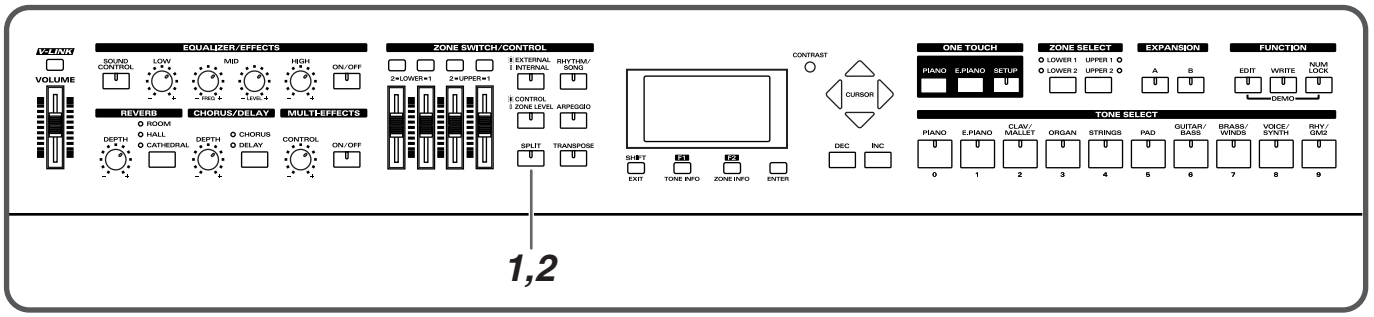
The Split Point has been set at the factory to "B3."

Split Mode



MEMO

You can change the split point. Please refer to **"Changing the Keyboard's Split Point"** (p. 39).



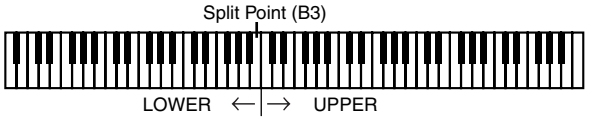
1

Press [SPLIT], getting the indicator to light.

ZONE SWITCH [LOWER 1] lights.

Try fingering the keyboard.

The UPPER tone plays in the right-hand section of the keyboard, and the LOWER tone plays in the left-hand section.



2

To exit Split mode, press [SPLIT] once more, and the indicator light goes out.

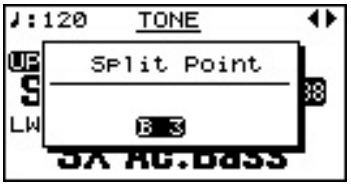
Changing the Keyboard's Split Point

You can change the point at which the keyboard is divided (the Split Point) in Split mode.

1

Hold down [SPLIT] for several seconds.

A screen such as the following appears, and the current value of the setting is displayed.



2

Hold down [SPLIT] and press a key.

When you release [SPLIT], the previous display will reappear.

The split-point key is included in the LOWER section.

When the split point is set, the Key Range (p. 69) in each zone is divided into left and right ranges with the split point as the boundary, and the following values are set.

- UPPER 1, UPPER 2: Split Point+1–C8
- LOWER 1, LOWER 2: A0–Split Point

MEMO

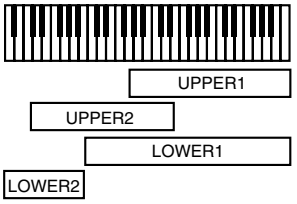
You can change the split point, adjusting it in semitone increments, by holding down [SPLIT] and pressing [INC] of [DEC].

MEMO

When the split point is changed, the Key Range (p. 69) value also changes.

MEMO

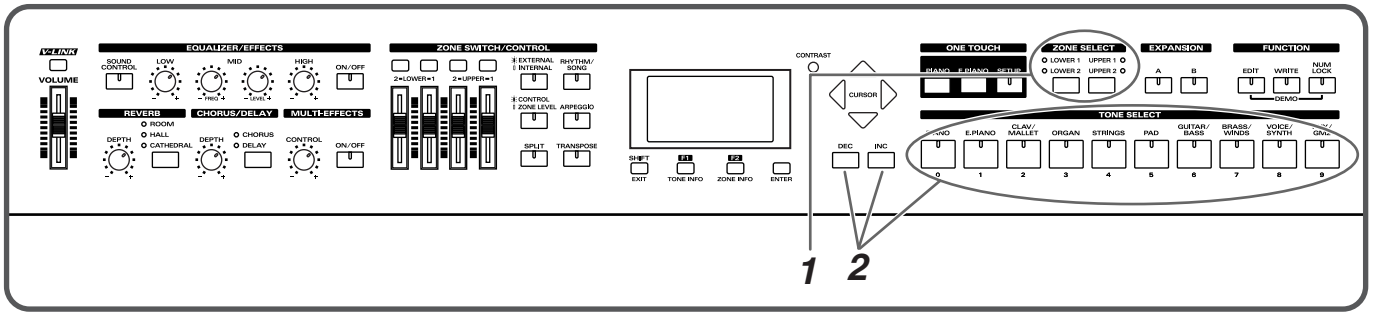
You can freely set whatever key ranges (registers) you like to each zone.



For details, refer to **"Setting the Key Range for Each Zone (Key Range)"** (p. 69).

Changing the Tone for a Zone

When changing the tone assigned to a zone, use the ZONE SELECT button to specify the zone with the tone you want to change.



1

Press the ZONE SELECT button for the part whose tone you want to change, causing the zone's indicator to light up.

The indicator for the currently selected TONE SELECT button lights up in the same color as the indicator for the selected zone.

2

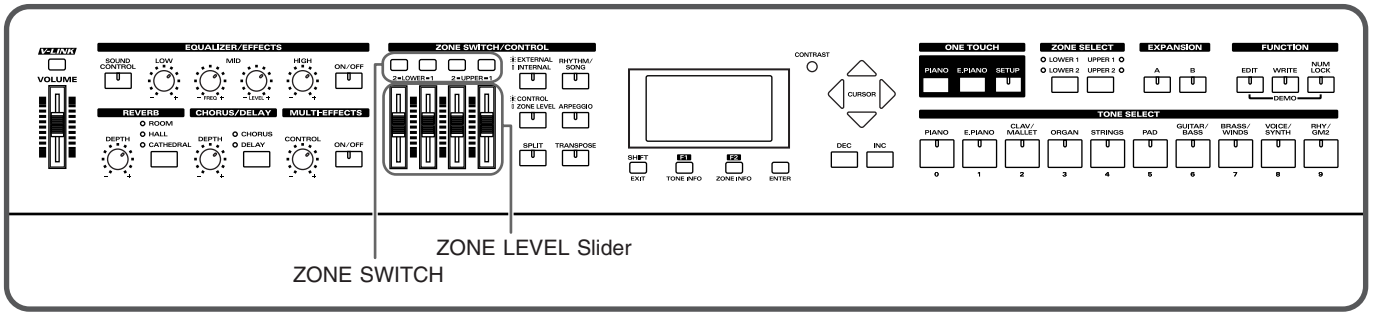
Select the tone category with a TONE SELECT button, then press [INC]/[DEC] to select the tone.

When [NUM LOCK] is on, you can specify tone numbers with the TONE SELECT buttons (p. 34).

MEMO

When you press the ZONE SELECT button corresponding to a zone for which the ZONE SWITCH is OFF (unlit), the three buttons for that zone, ZONE SWITCH, ZONE SELECT, and ENTER, start flashing. Pressing any of these flashing buttons then sets that zone's ZONE SWITCH to ON (lit).

Adjust the Volume Level for Individual Zones (ZONE SWITCH/ZONE LEVEL Slider)



With the RD-700SX, each of the parts that is performed using the internal sound generator is referred to as an INTERNAL Zone.

You can use the ZONE SWITCH buttons and ZONE LEVEL sliders (UPPER 1, UPPER 2, LOWER 1, LOWER 2) to turn sounds on and off and set their volume level.

ZONE SWITCH

This determines whether or not the sounds in the particular zone are played.

When a zone's ZONE SWITCH indicator is lit (on), the zone sounds when the keyboard is played. The screen Zone names are indicated in uppercase letters.

When a zone's ZONE SWITCH indicator is not lighted (off), the zone does not sound even when the keyboard is played. The screen Zone names are not indicated (Only UPPER1 appears in lowercase.).

ZONE SWITCH will turn on or off each time you press it.

ZONE LEVEL Slider

Adjusts the volume of an individual zone.

When a zone's ZONE SWITCH indicator is not lighted, no sound is produced for the zone even when the slider is moved.

Zones to which tones from external sound modules are assigned are called EXTERNAL Zones. With the RD-700SX, you can control both the External and INTERNAL Zones in the same manner. For more on the control of EXTERNAL Zone, refer to **"Adjusting the Volume of Each Zone (EXTERNAL Zone)"** (p. 64).

MEMO

Use the VOLUME slider when adjusting the overall volume level (p. 24).

NOTE

You cannot adjust the volume level with the ZONE LEVEL sliders when [CONTROL/ ZONE LEVEL] is lit.

Transposing the Key of the Keyboard ([TRANSPOSE])

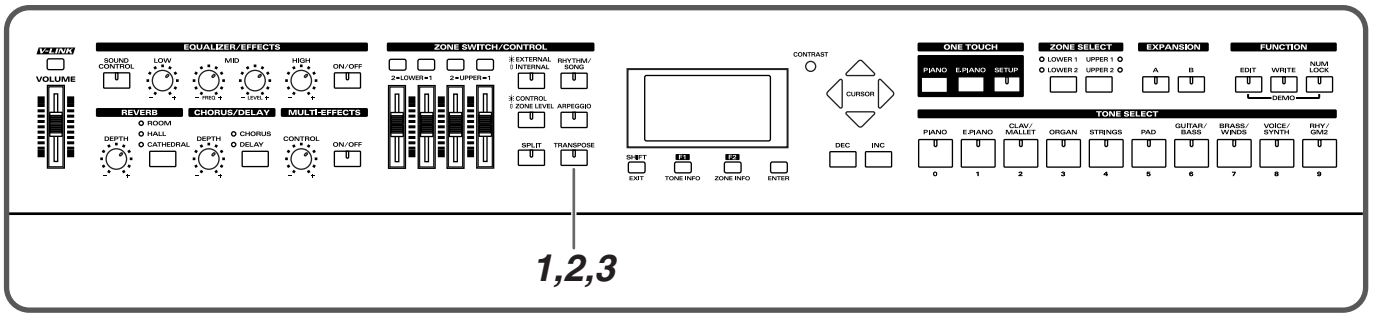
You can transpose performances without changing the keys you are playing, as well as change the pitch by an octave. This feature is called "Transpose."

This is a convenient feature to use when you want to match the pitch of the keyboard performance to a vocalist's pitch, or perform using the printed music for trumpets or other transposed instruments.

The reference Transpose setting is C4, and the setting can be adjusted in semitone units in a range of -48–0–+48.

NOTE

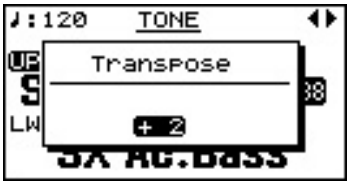
Note messages from MIDI IN connector will not be transposed.



1

Hold down [TRANSPOSE] for several seconds.

A screen such as the following appears, and the current value of the setting is displayed.



2

Hold down [TRANSPOSE] and press a key.

For example, to have "E" sound when you play "C" on the keyboard, hold down [TRANSPOSE] and press the E4 key. The degree of transposition then becomes "+4."

When you release [TRANSPOSE], the previous display will reappear.

When the amount of transposition is set, the Transpose function switches on, and [TRANSPOSE] lights up

When the transpose value is set to "0," the button's indicator will remain dark even if you press the [TRANSPOSE].

3

To turn off Transpose, press [TRANSPOSE] so that its indicator goes off.

The next time [TRANSPOSE] is pressed, the sound is transposed by an amount corresponding to the value set here.

MEMO

You can also transpose by holding down the [TRANSPOSE] and pressing the [INC] or [DEC].

MEMO

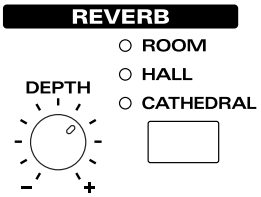
Even when the Transpose function is turned on, the Split Point remains unchanged (p. 39).

MEMO

You can set the degree of transposition for each of the Zone individually. For details, refer to **"Setting the Transposition for Each Individual Zone (Transpose)"** (p. 69).

Adding Reverberation to the Sound ([REVERB])

The RD-700SX can apply a reverb effect to the notes you play on the keyboard. Applying reverb adds pleasing reverberation to what you play, so it sounds almost as if you were playing in a concert hall.



1

Press the [REVERB].

The reverb type switches each time you press the [REVERB].

TYPE	explanation
OFF (unlit)	No reverb is used.
ROOM	Simulates the reverberation of a room.
HALL	Simulates the reverb of a large concert hall.
CATHEDRAL	Simulates the reverberation of a cathedral.

2

Adjust the REVERB [DEPTH] knob to select the amount of reverb effect to be applied.

Rotating the knob clockwise applies a deeper reverb, and rotating it counterclockwise applies less reverb.

"Making Reverb Settings" (p. 87).

MEMO

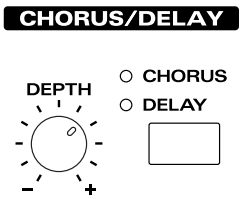
You can select the reverb types other than those shown at the left with "**"Reverb Type"** (p. 87)" in "3. Effects" in the Edit screen. In this case, the [REVERB] indicator corresponding to the selected type flashes.

NOTE

When the Tone Info's Reverb Amount setting is set to "0," then no effect is applied, even when the REVERB knob is turned (p. 71).

Adding Breadth to the Sound ([CHORUS/DELAY])

You can apply a chorus and delay effect to the notes you play on the keyboard. By adding the chorus and delay effect, you can give the sound greater dimension, with more fatness and breadth.



1

Press the [CHORUS/DELAY].

The chorus type switches each time you press the [CHORUS/DELAY].

TYPE	explanation
OFF (unlit)	Chorus and Delay is not used.
CHORUS	You can give the sound greater dimension, with more fatness and breath.
DELAY	This effect delays the sound to produce an echo-like effect.

"Setting Chorus and Delay" (p. 88).

MEMO

You can select the chorus types other than those shown at the left with "**"Chorus Type"** (p. 88)" in "3. Effects" in the Edit screen. In this case, the [CHORUS/DELAY] indicator corresponding to the selected type flashes.

2

Adjust the CHORUS/DELAY [DEPTH] knob to select the amount of chorus effect to be applied.

Rotating the knob clockwise applies a deeper chorus, and rotating it counterclockwise applies less chorus.

NOTE

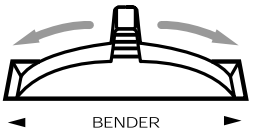
When the Tone Info's Chorus Amount setting is set to "0," then no effect is applied, even when the CHORUS knob is turned (p. 71).

Changing the Sound's Pitch in Real Time (Bender/ Modulation Lever)

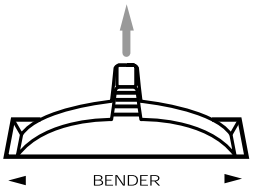
While playing the keyboard, move the lever to the left to lower the pitch, or to the right to raise the pitch. This is known as Pitch Bend.

You can also apply vibrato by manipulating the lever away from you. This is known as Modulation.

If you move the lever away from you and at the same time move it to the right or left, you can apply both effects simultaneously.



Pitch Bend



Modulation

NOTE

The effect obtained when you move the lever may differ according to the tone being used. Additionally, the effect applied by moving the lever is predetermined for each tone, and cannot be changed.

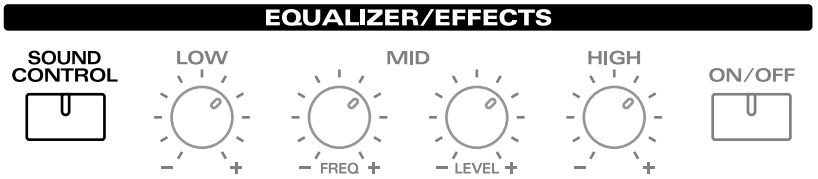
MEMO

When the Tone Wheel screen is displayed, the Pitch Bend Lever is set so that tilting the lever from left to right switches the Rotary effect from fast to slow. For details, refer to **"Simulating the Creation of Organ Tones (Tone Wheel Mode)"** (p. 53).

Adding Liveliness to the Sound ([SOUND CONTROL])

Switching on the Sound Control function suppresses differences in volume for a more consistent sound.

This is set to OFF when the power is turned on.



1

Press the [SOUND CONTROL] button, getting its indicator to light.

2

To cancel this function, press the [SOUND CONTROL] once more, extinguishing the indicator.

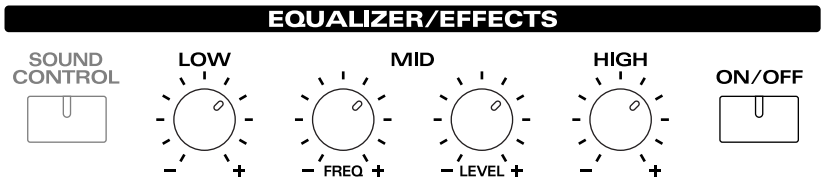
NOTE

Sounds may become distorted with certain tones.

"Making the Sound Control Settings (Sound Control)" (p. 88)

Adjusting the Level of the Sound's Low, Mid, and High-Frequency Ranges ([EQUALIZER])

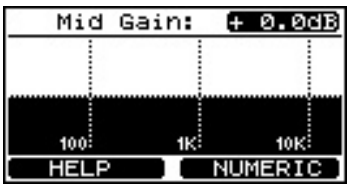
The RD-700SX is equipped with a three-band equalizer.
You can adjust the levels of the low-frequency, midrange, and high-frequency ranges using the EQUALIZER [LOW], [MID], and [HIGH] knobs, respectively.
You can also adjust the midrange frequency with [MID FREQ].



1

Press EQUALIZER [ON/OFF] to make its indicator light.

A screen like the one shown below appears, and the equalizer is turned on.

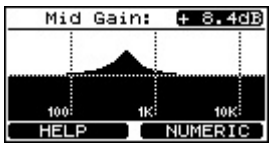


2

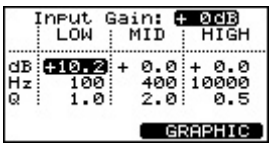
Turn the knobs to adjust the levels in each range.

Rotating a knob ([LOW], [MID LEVEL], [HIGH]) in the negative direction cuts the level of that frequency range; rotate it in the positive direction boost the level of that range.
In addition, rotating [MID FREQ] in the negative direction lowers the frequency, while rotating it in the positive direction raises the frequency.
You can press [F2] to get a numerical reading for the value of the setting. Pressing [F2] toggles you between "NUMERIC" and "GRAPHIC" as the format for what you see indicated in the screen.

GRAPHIC



NUMERIC



The way settings are made differs depending on the format used, as follows:

When the Graphic format is used

- Slightly adjust the knob for the range in which you want to change the value to move the cursor.
- Press CURSOR [◀]/[▶] to adjust the frequency.
- Press CURSOR [▲]/[▼] to adjust the Q.

When the Numeric format is used

- Press CURSOR [▲]/[▼]/[◀]/[▶] to move the cursor.
- Press [INC]/[DEC] to change the value.

3

To turn the equalizer off, press EQUALIZER [ON/OFF], extinguishing its indicator.

NOTE

Equalization is applied to the overall sound output from the OUTPUT jacks.

MEMO

You can set the RD-700SX so that the equalizer settings are not changed when you change setups. Refer to **"Preventing Equalizer Settings from Being Switched (EQ Mode)"** (p. 80).

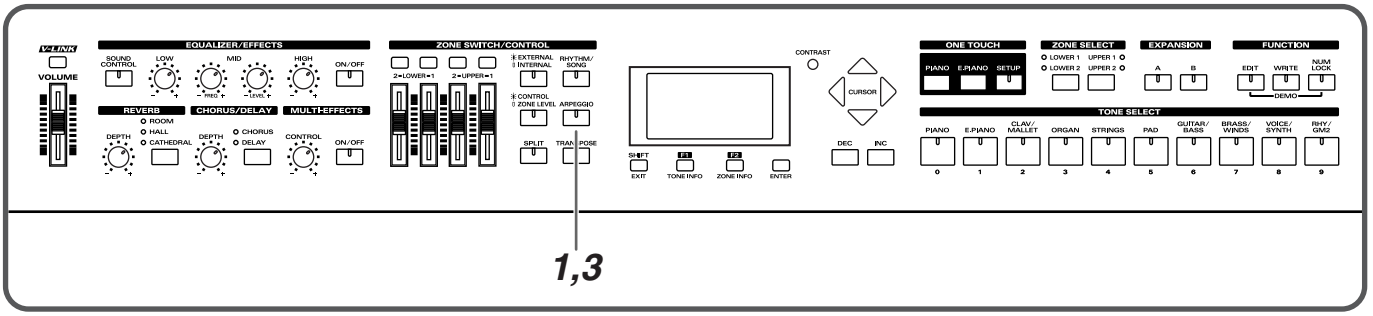
NOTE

Sounds may be distorted with certain knob settings. If this occurs, adjust the Input Gain on the upper of the "NUMERIC' screen.

Using the Convenient Functions in Performances

Playing Arpeggios ([ARPEGGIO])

The RD-700SX's Arpeggio function lets you produce arpeggios automatically; simply hold down some keys, and a corresponding arpeggio will be played automatically.



1

Press [ARPEGGIO], getting the indicator to light.

2

Press a key below Middle C (C4).

The arpeggio starts, with the notes being played in the sequence the keys were pressed.

Key ranges in which arpeggios can be played

3

If you press [ARPEGGIO] once more, the indicator light goes out, and the keyboard returns to the normal performance mode.

MEMO

At the factory settings, arpeggios continue playing even after the keys are released, but you can also have arpeggios stop playing when you release the keys (p. 96).

MEMO

When the Arpeggio's Arpeggio Hold is set to ON in Edit mode (p. 96), the [ARPEGGIO] indicator flashes.

MEMO

For more detailed information, including applicable key ranges and instructions for playing arpeggios, refer to **"Making Arpeggio Settings"** (p. 95).

MEMO

When you are performing arpeggios while a rhythm is playing, the arpeggio stops playing at the same time the rhythm stops.

Changing the Arpeggio Style

You can select the way an arpeggio is played (the style) to match a variety of different musical genres.

1 **Press [ARPEGGIO], getting the indicator to light.**

2 **Press CURSOR [▶] to go to the Rhythm/Song/Arpeggio screen.**

3 **Press CURSOR [▼] to move the cursor to "ARP."**

4 **Press [INC]/[DEC] to select the style.**

The arpeggio's style changes.

5 **Try playing the keyboard.**

6 **If you press [ARPEGGIO] once more, the indicator light goes out, and the keyboard returns to the normal performance mode.**

☞ **"Setting the Way Arpeggios are Played (Arpeggio Style)"** (p. 95)

☞ **"Arpeggio Style List"** (p. 152).

MEMO

When you're at the Tone screen, you can press CURSOR [▶] to go to the Rhythm/Song/Arpeggio screen. From the Rhythm/Song/Arpeggio screen, you can get back to the Tone screen by pressing CURSOR [◀].

Changing Arpeggio Tempos

1 **In the Rhythm/Song/Arpeggio screen, press CURSOR [▲] to move the cursor to " ♩: " in the screen.**

2 **Press [INC]/[DEC] to change the tempo.**

When you play the keyboard, arpeggios are played at the selected tempo.

MEMO

The way arpeggio is played and the tempo display may differ with some arpeggio Styles.

You can change a variety of arpeggio settings beyond just the arpeggio style and tempo by holding down [SHIFT] and pressing [ARPEGGIO].

For details, refer to **"Making Arpeggio Settings"** (p. 95).

Playing Rhythm ([RHYTHM/SONG])

The RD-700SX features internal drum patterns complementing Jazz, Rock, and other various musical genres. These drum patterns are referred to as "Rhythms."

You can perform using Rhythms combined with various functions, for example performing arpeggios while a Rhythm is playing.

When "SONG/ARP" screen is selected for the Rhythm/Song/Arpeggio screen, pressing [RHYTHM/SONG] then starts playback of the song.

Before playing the rhythm, first check the screen using the following procedure.

1. Press CURSOR [▶] in the Tone screen to select the Rhythm/Song/ Arpeggio screen.

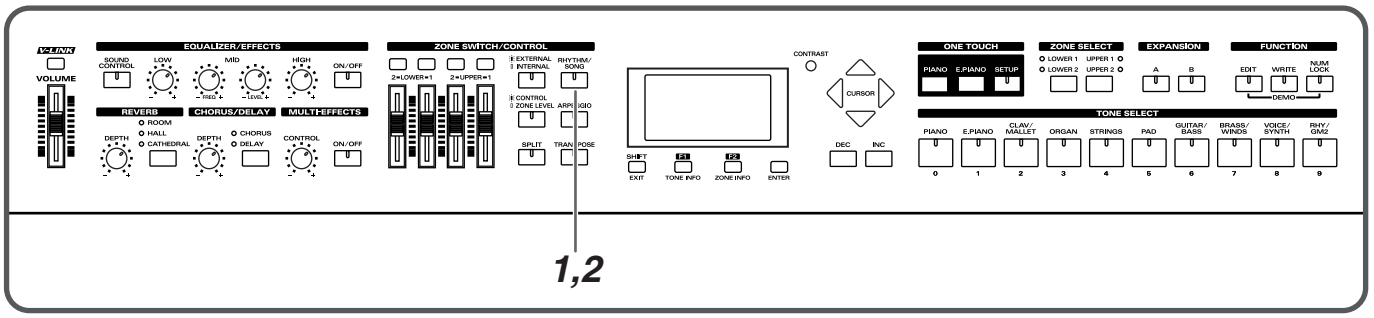
Rhythm/Song/Arpeggio screen

"Song/Arpeggio" screen (playback songs)

"Rhythm/Arpeggio" screen (playback rhythms)

2. If you're at the "SONG/ARP" screen, press [F1] to access the "RHY/ARP" screen.

You'll then be able to play back rhythms.



1

Press [RHYTHM/SONG] to make the button indicator light.

The Rhythm begins playing.

2

Press [RHYTHM/SONG] once more; the indicator goes out, and the Rhythm stops playing.

You can also start and stop playback of the rhythm by pressing [F2].

MEMO

When the Arpeggio's Arpeggio Hold is set to ON in Edit mode (p. 96), if an arpeggio is played while a rhythm plays, the arpeggio will stop at the moment that the rhythm stops.

Changing the Rhythm Pattern

You can select the way a Rhythm is played (the pattern) to match a variety of different musical genres.

1

Press CURSOR [▶] to go to the Rhythm/Song/Arpeggio screen.

If you're in the "SONG/ARP" screen, press [F1] to access the "RHY/ARP" screen.

2

Press [RHYTHM/SONG] to make the button indicator light.

The Rhythm begins playing.

3

Press CURSOR [▲]/[▼] to move the cursor to "RHY."

4

Press [INC]/[DEC] to select the pattern.

The Rhythm's pattern changes.

5

If you press [RHYTHM/SONG] once more, the indicator light goes out, and the Rhythm stops playing.

MEMO

For more information about the kind of Rhythm Patterns, please refer to **"Rhythm Pattern List"** (p. 153).

MEMO

When the Tone screen is displayed, the Rhythm/Song/Arpeggio screen appears when CURSOR [▶] is pressed.

Pressing CURSOR [◀] when the Rhythm/Song/Arpeggio screen is showing then displays the Tone screen.

Changing Rhythm Tempos

1

In the Rhythm/Song/Arpeggio screen, press CURSOR [▲] to move the cursor to "♩:" in the screen.

2

Press [INC]/[DEC] to change the tempo.

The Rhythm are played at the selected tempo.

MEMO

The way Rhythm is played and the tempo display may differ with some Rhythm Patterns.

You can change a variety of arpeggio settings beyond just the arpeggio style and tempo by holding down [SHIFT] and pressing [RHYTHM/SONG].

For details, refer to **"Making the Rhythm and Arpeggio Settings (Rhythm/Arpeggio)"** (p. 93).

Playing the Songs ([RHYTHM/SONG])

The RD-700SX can play back SMF music files.

When "RHY/ARP" screen is selected for the Rhythm/Song/Arpeggio screen, pressing [RHYTHM/SONG] then starts playback of the rhythm.

Before playing the rhythm, first check the screen using the following procedure.

1. Press CURSOR [▶] in the Tone screen to select the Rhythm/Song/Arpeggio screen.

Rhythm/Song/Arpeggio screen

"Song/Arpeggio" screen (playback songs)

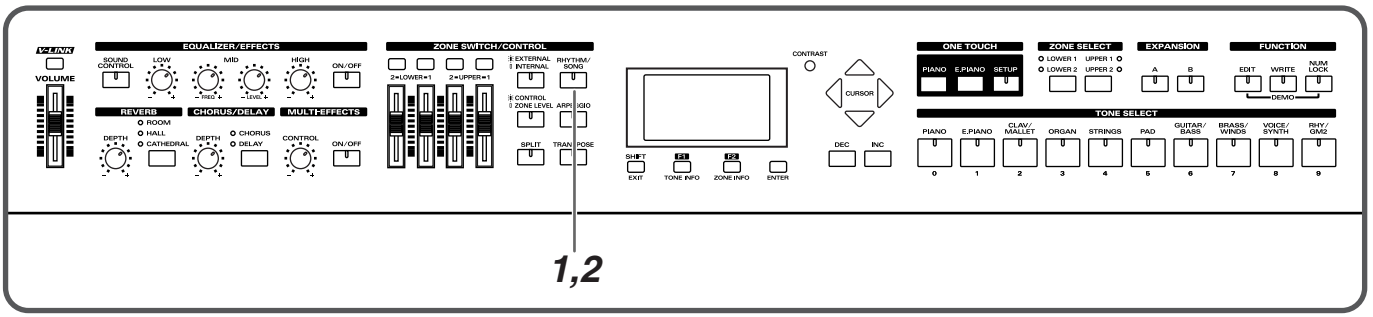
"Rhythm/Arpeggio" screen (playback rhythms)

2. If you're at the "RHY/ARP" screen, press [F1] to access the "SONG/ARP" screen.

You'll then be able to play back songs.

MEMO

You can use the USB connector to exchange song data between the RD-700SX and your computer. Refer to **"Exchanging Files with Computers (Storage Mode)"** (p. 105)



1

Press [RHYTHM/SONG] to make the button indicator light.

The song data begins playing.

2

Press [RHYTHM/SONG] once more; the indicator goes out, and the song stops playing.

You can also start and stop playback of the song by pressing [F2].

Selecting the Song

1

Press CURSOR [▶] to go to the Rhythm/Song/Arpeggio screen.

If you're in the "RHY/ARP" screen, press [F1] to access the "SONG/ARP" screen.

2

Press CURSOR [▲]/[▼] to move the cursor to "SONG."

3

Press [INC]/[DEC] to select the song.

4

Press [RHYTHM/SONG] to make the button indicator light.

The selected song begins playing.

Song number "000" is programmed with a Preset song.
Enjoy performing on the keyboard along with this song as it is played back.

No.	Song Name	Composer/Copyright	
000.	Enjoy Yourself	Scott Tibbs	©2004 Roland Corporation

MEMO

When the Tone screen is displayed, the Rhythm/Song/Arpeggio screen appears when CURSOR [▶] is pressed.

Pressing CURSOR [◀] when the Rhythm/Song/Arpeggio screen is showing then displays the Tone screen.

MEMO

You can change the Output jack of the song data when setting the MIDI OUT Port (p. 61).

Changing Song Tempos

1

In the Rhythm/Song/Arpeggio screen, press CURSOR [▲] to move the cursor to " ♩: " in the screen.

2

Press [INC]/[DEC] to change the tempo.

The song are played at the selected tempo.

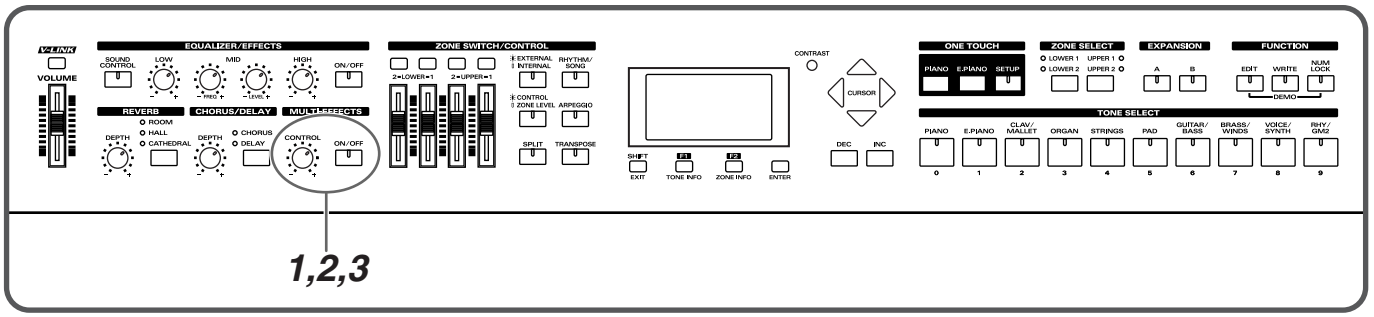
Applying Effects to the Sound (Multi-Effects)

In addition to chorus (p. 43) and reverb (p. 43), the RD-700SX also allows you to apply "multi-effects" to sounds. Multi-effects provides a collection of 125 different effects, such as distortion and rotary, from which you can choose.

You can use two multi-effects simultaneously; these are referred to as MFX1 and MFX2.

The factory settings have a suitable effect assigned to each of the tones.

"Effect/Parameter List" (p. 112).



1 **Press MULTI-EFFECTS [ON/OFF], getting its indicator to light.**

2 **Adjust the amount of multi-effect applied with the MULTI-EFFECTS [CONTROL] knob.**

3 **To cancel the multi-effect, press MULTI-EFFECTS [ON/OFF], the indicator light goes out.**

MEMO

The allowable values adjusted with the MULTI-EFFECTS [CONTROL] knob vary with the selected effect. For details, refer to **"MFX Control"** (p. 87).

NOTE

Effects are not applied to Tones for which the Tone Info MFX settings are set to "00 THRU" (p. 71).

Specifying the Zone on Which to Use the Multi-effects

With the RD-700SX, you can use two different multi-effects simultaneously. Thus, the RD-700SX features settings parameters called "MFX Source" for selecting the multi-effects settings to be used and "MFX Dest" for selecting the zone to which the multi-effects are applied. Therefore, when multiple zones are being played, please note that according to the MFX Source and MFX Dest settings, there may be certain zones to which no multi-effects are applied.

For more detailed information, refer to MFX Source (p. 86), and MFX Dest (p. 87).

You can change a variety of Multi-effects settings beyond just the Multi-effects type by holding down [SHIFT] and pressing MULTI-EFFECTS [ON/OFF]. For details, refer to **"Making Multi-Effects Settings"** (p. 86).

Simulating the Creation of Organ Tones (Tone Wheel Mode)

When any of the "TW-Organ 1–10" Tones is selected for any of the INTERNAL Zone (UPPER1, UPPER2, LOWER1, LOWER2), you can perform in "Tone Wheel mode," in which the creation of organ sounds is simulated.

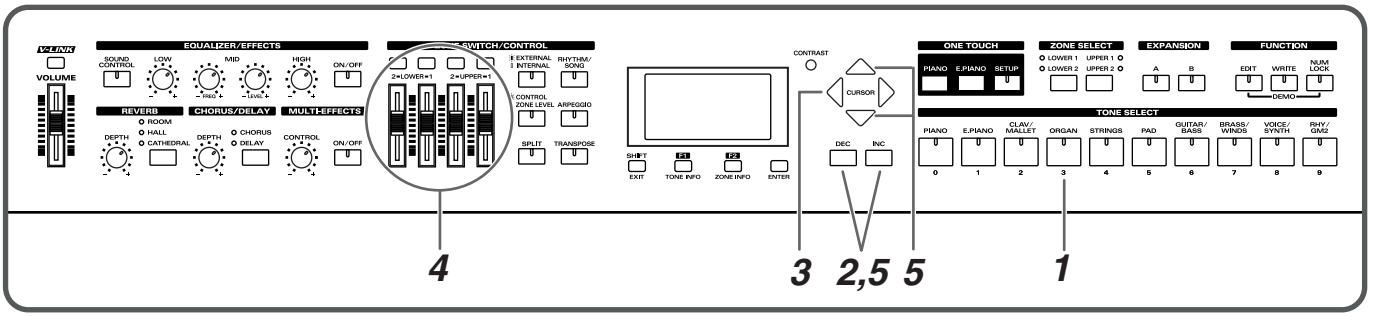
An organ features nine "harmonic bars" that can be drawn in and out, and by using the bars in different combinations of positions, a variety of different tones can be created. Different "Feet" are assigned to each bar, with the pitches of the sounds being determined by these "Feet."

You can simulate the creation of tones using the harmonic bars by assigning Feet to the ZONE LEVEL sliders.

While there are only four ZONE LEVEL sliders, you can switch the Feet setting by turning the ZONE SWITCH buttons on and off, thus allowing you to assign eight Feet settings to the sliders.

What Are "Feet?"

Feet basically refers to the lengths of pipe used in pipe organs. The length of pipe used to produce the reference pitch (the fundamental) for the keyboard is eight feet. Reducing the pipe to half its length produces a pitch one octave higher; conversely, doubling the pipe length creates a pitch one octave lower. Therefore, a pipe producing a pitch one octave below that of the reference of 8′ (eight feet) would be 16′; for one octave above the reference, the pipe would be 4′, and to take the pitch up yet another octave it would be shortened to 2′.



1 **Bring up the Tone screen (p. 29), then press the [ORGAN].**

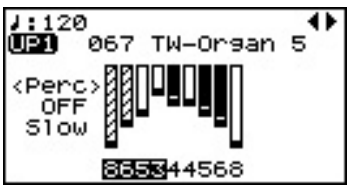
If the Tone screen is not currently displayed, press ONE TOUCH [PIANO], then press the [ORGAN].

2 **Press the [INC] / [DEC] to select one of the "TW-Organ 1–10" Tone.**

3 **Press the CURSOR [◀] button.**

The following Tone Wheel screen appears.

This Tone Wheel screen appears only when a Tone Wheel Tone is selected for one of the Zone in the Tone screen.



4

When the ZONE LEVEL sliders are moved, the harmonic bars move in the display, and the tone changes.

By pressing the ZONE SWITCH buttons on and off, you can adjust the sounds for other Feet.
If the cursor is moved to the value at the bottom of the screen, you can adjust the sounds for Feet with [DEC] and [INC].

5

Press CURSOR [▲]/[▼] to move the cursor to <Perc> and press [DEC]/[INC] to change the value.

Perc (Percussion) adds an attack-type sound to the beginning of the note to give the sound more crispness. The attack sound changes according to the value.

Settings	Description
OFF	No percussion is added.
2nd	Percussion sounds at a pitch one octave above that of the key pressed.
3rd	Percussion sounds at a pitch an octave and a fifth above that of the key pressed.
Slow	The percussion's attenuation time is lengthened. This softens the sense of attack.
Fast	The percussive sound will decay more quickly. This gives more of a sense of attack for a sharp sound.

NOTE
The Percussion is applied only to the UPPER Tone.

NOTE
When percussion is on, the 1′ pitch will not be produced (p. 53).

MEMO
The settings changed here are stored to each Tone. Even when you exit from Tone Wheel mode, you can press [ORGAN] to select the Tone with the changed settings.

Changing the Undulation of the Organ Tone (Rotary Effect)

While the Tone Wheel screen is displayed, you can change the undulation rate of the Rotary effect with the Pitch Bend lever.
The Rotary effect is an effect that recreates the sound of the rotating speakers used to augment the sound of an organ.
The Rotary effect is set to alternately rotate more rapidly or slowly when the Pitch Bend lever is moved to the left and right; the direction is not fixed.

MEMO
This Pitch Bend Lever setting is effective only in the Tone Wheel screen.

Changing the ZONE LEVEL Slider Feet Assignments (Harmonic Bar)

You can change the Feet assigned to each of the ZONE LEVEL sliders used in Tone Wheel mode.

1

Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2

Press CURSOR [▲]/[▼] to select "2.Control."

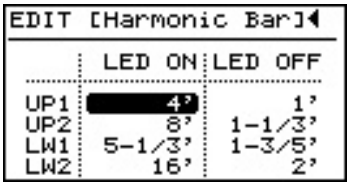
3

Press [ENTER] to display the Edit screen.

4

Press CURSOR [◀]/ [▶] to select "Harmonic Bar."

Feet Assignments in the Tone Wheel Screen



5

Press CURSOR [▲]/[▼]/[◀]/[▶] to move the cursor to the parameter for changing the Feet.

"LED ON" and "LED OFF" in the screen indicate whether ZONE SWITCH is switched on or off.

Parameter	Value
UP1	16', 5-1/3', 8', 4', 2-2/3, 2', 1-3/5', 1-1/3', 1'
UP2	
LW1	
LW2	

6

Press [INC]/[DEC] to select the Feet.

7

When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

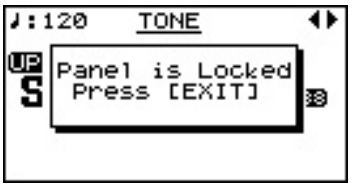
Disabling the Button (Panel Lock)

Once Panel Lock is engaged, all buttons (except for the VOLUME slider, CONTRAST knob, Pitch Bend/Modulation lever, Pedal, ONE TOUCH [PIANO], ONE TOUCH [E.PIANO], and [EXIT]) will not function. This prevents settings from being changed inadvertently on stage or in other such situations.

1

While holding down [EDIT], press [ENTER].

Following display will appear.



2

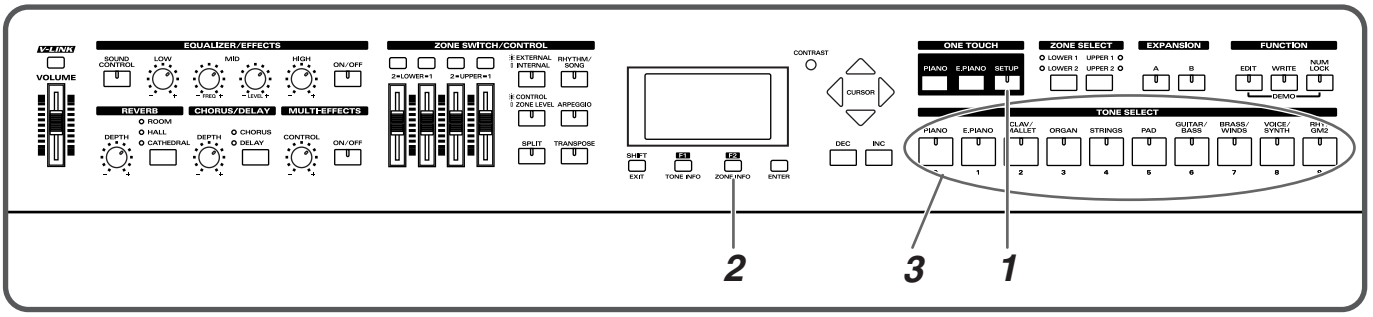
Press ONE TOUCH [PIANO] or [EXIT] to cancel Panel Lock.

Selecting Stored Settings ([SETUP])

The RD-700SX's INTERNAL ZONE (p. 28) and EXTERNAL ZONE (p. 28) tone settings, effect settings, and other such settings are collectively referred to as a "Setup."
Once you've stored your preferred settings, and settings for the songs to be performed as a Setup, you can then switch whole groups of settings during a performance just by switching Setups.
You can store up to 100 different Setups.
The RD-700SX is shipped from the factory with recommended Setups already prepared.
You can also register the Setups you like and use frequently to the TONE SELECT buttons. These registered Setups are called the "Favorite Setups."
This function allows you to select Setups more quickly.
Now try actually calling up a Setup.

NOTE

The current settings are erased when a Setup is called up. Be sure to save any Setup you would like to keep first before calling up another Setup (p. 58).



1

Press [SETUP], getting the indicator to light.

At this time, turn [NUM LOCK] off.
The Setup screen, shown below, appears in the display.

2

Press [F2 (BANK CHANGE)] to select a bank.

When you press [F1], a list of the Setups registered to the buttons for the selected bank is displayed.
Hold down [F1] and press CURSOR [▲]/[▼] to switch the screens.

3

Press one of the TONE SELECT buttons to select a Setup.

4

Try playing the keyboard.

The settings are switched to those of the Setup that has been called up.

MEMO

There are four banks, A, B, C, and D. Each time you press [F2], the bank is switched in the following sequence: A → B → C → D → A →...

When the Tone screen is displayed, the [SETUP] indicator lights and the Setup screen appears when CURSOR [◀] is pressed.

From the Setup screen, you can get back to the Tone screen by pressing CURSOR [▶].

However, the Tone Wheel screen is displayed if "TW-Organ 1–10" is selected for any Part in the Tone screen.

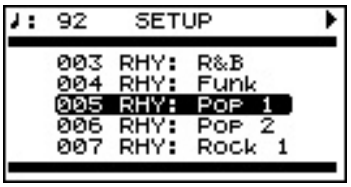
Refer to **"Simulating the Creation of Organ Tones (Tone Wheel Mode)"** (p. 53).

Selecting Setups Other Than the Favorite Setups

1. **Press [SETUP], getting the indicator to light.**
2. **Press [INC]/[DEC] or TONE SELECT buttons to select the Setup to be called up.**

   After [INC]/[DEC] is pressed, the following screen appears; the Setup screen then reappears after a few moments.

   The screen does not change when the TONE SELECT buttons are used to input Setup numbers. Press [ENTER] afterwards to set the number.



MEMO

Setups indicated by a "RHY:" before the name let you enjoy performing with a session-like feel while playing a Rhythm. Be sure to check it out.

Registering the Setups You Like (Favorite Setups)

You can also register the Setups you like and use frequently to the TONE SELECT buttons. This function allows you to select Setups more quickly.

You can register a total of 40 setups, ten tones in each of the four banks, to the Favorite Setups.

1 **Press [SETUP] to call up the Setup you want to register.**

Make sure [NUM LOCK] is off at this time.

2 **Press [F2] to select the bank to which you want to register the Setup.**

3 **Hold down [F1] and press the TONE SELECT button for the registration destination.**

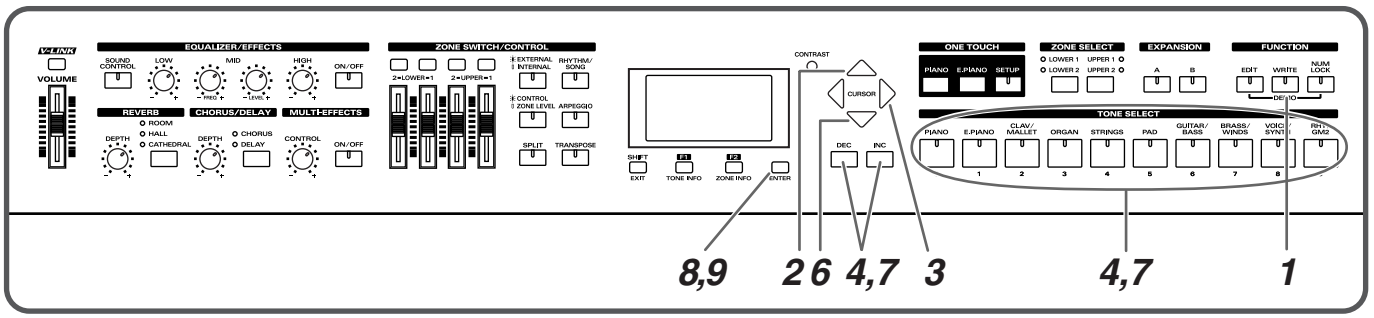
The Setup is registered to the button that is pressed.

MEMO

Settings registered in the RD-700SX are not deleted even when the power is turned off.

Storing Settings to Setups ([WRITE])

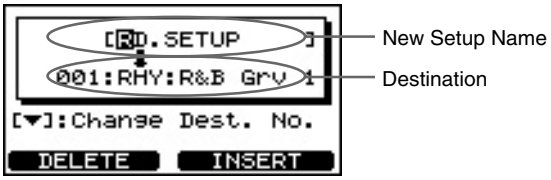
If you want to use the changed content as a new Setup, use the following procedure to save the settings to a Setup.
You can also change the name of a Setup.
You can store 100 Setups on the RD-700SX.



1

Press [WRITE], getting the indicator to light.

The Setup screen appears.



2

Press CURSOR [◀]/[▶] to move the cursor to the positions where the characters are to be input.

3

Press [INC]/[DEC] to enter the characters.

The following characters are available.

space, ! " # $ % & ' ( ) * + , - . / 0–9, : ; < = > ? @ A–Z, [\ ] ^ _ ` a–z, { | } ~

When [F2] is pressed, a single-character blank space is inserted; pressing [F1] deletes one character.

4

Repeat steps 2–3 to input the name.

5

Press CURSOR [▼] to move the cursor to the destination Setup name.

6

Select the save-destination Setup, either by pressing [INC]/[DEC].

When using the TONE SELECT buttons to input Setup numbers, press [ENTER] afterwards to set the number.

MEMO

You can use the TONE SELECT buttons to directly specify and enter characters.

MEMO

The file that the file name starts from ". (dot)" cannot be written.

MEMO

Pressing CURSOR [▼], even while inputting the name, moves the cursor to the save-destination Setup number.

7

When you have finished determining the save destination and the name for the new Setup, press [ENTER] or [F1].

The [ENTER] indicator is flashing, and the confirmation message appears.

If you do not want to save the Setup, press [EXIT] or [WRITE].

The operation is cancelled, and you are returned to the Tone screen.

8

When [ENTER] is pressed, saving of the Setup begins.

When you have finished saving the Setup, the [WRITE] indicator goes out and you are returned to the Tone screen.

NOTE

Never switch off the power while "Writing..." appears in the display. Doing so may damage the internal memory, making it impossible to use this instrument.

Settings Not Saved in a Setup

The following settings cannot be saved to a Setup.

- Song Number
- ONE TOUCH [PIANO] and [E.PIANO] Settings (p. 73)
- System Settings (p. 79)
- Sound Control Settings (p. 88)
- V-Link Settings (p. 97)
- Rec Setting (p. 101)

Pressing [F1 (WRITE)] in the Edit screen saves the System, Sound Control, and V-Link settings.

Setup <000> (PIANO SETUP)

When you press the ONE TOUCH [PIANO] or [E.PIANO], and then press CURSOR [◀] to bring up the Setup screen, SETUP<000> is displayed.

This SETUP<000> is the Setup containing the stored settings for ONE TOUCH [PIANO] or [E.PIANO]; the contents cannot be overwritten by pressing the [WRITE] as with other Setups.

When saving content changed from the ONE TOUCH [PIANO] or [E.PIANO] settings, write the settings to SETUP<001> or later.

Using the RD-700SX As a Master Keyboard

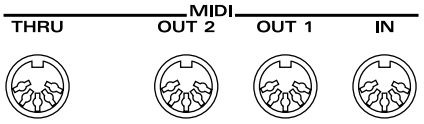
By connecting an external MIDI device to the MIDI OUT connector on the RD-700SX's rear panel, you can then control the external MIDI device with the RD-700SX. Normally, the RD-700SX transmits Note messages from the MIDI OUT connector, but when [EXTERNAL/INTERNAL] is on, you can control not only Note messages, but a variety of other external MIDI device settings as well.
You can control internal and external sound generators independently.
Pressing [EXTERNAL/INTERNAL] so the button's indicator is lit enables the RD-700SX to control external MIDI sound modules. You use the [EXTERNAL/INTERNAL] to switch between control of the INTERNAL zone and control of the EXTERNAL zone.
You can also make detailed settings for MIDI messages transmitted to external sound modules.

What's MIDI?

MIDI (Musical Instrument Digital Interface) is a standard specification that allows musical data to be exchanged between electronic musical instruments and computers. By using a MIDI cable to connect devices that have MIDI connectors, you can create an ensemble in which a single MIDI keyboard can play multiple instruments, or change settings automatically as the song progresses.

About MIDI Connectors

The RD-700SX has the following three types of MIDI connector. Their functions differ as described below.



MIDI IN Connector

Performance messages from an external MIDI device are received here. These incoming messages may instruct the RD-700SX to play sounds or switch tones.

MIDI OUT Connector

MIDI messages are transmitted from this connector to external MIDI devices. The RD-700SX's MIDI OUT connector is used for sending the performance data of the keyboard controller section as well as data used for saving various settings and patterns (Bulk Dump→p. 99).

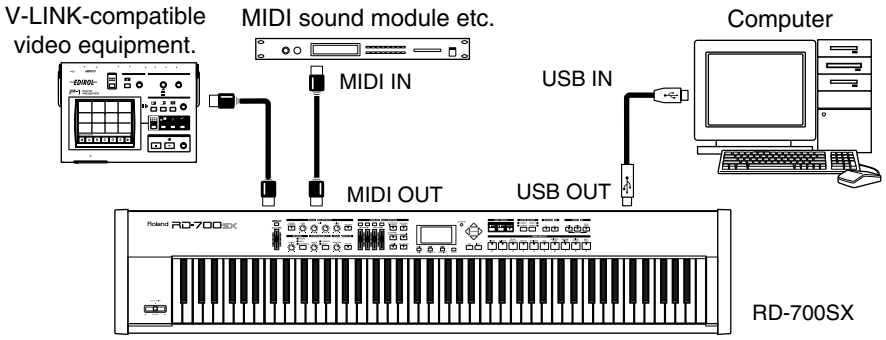
MIDI THRU Connector

MIDI messages received at MIDI IN connectors are re-transmitted without change from this connector to an external MIDI device. Use this in situations such as when you use multiple MIDI devices simultaneously.

☞ **"Connecting the RD-700SX to External Equipment"** (p. 21)

NOTE
Messages received via the USB connector are not transmitted from the MIDI THRU connector.

Connecting to External MIDI Sound Generators

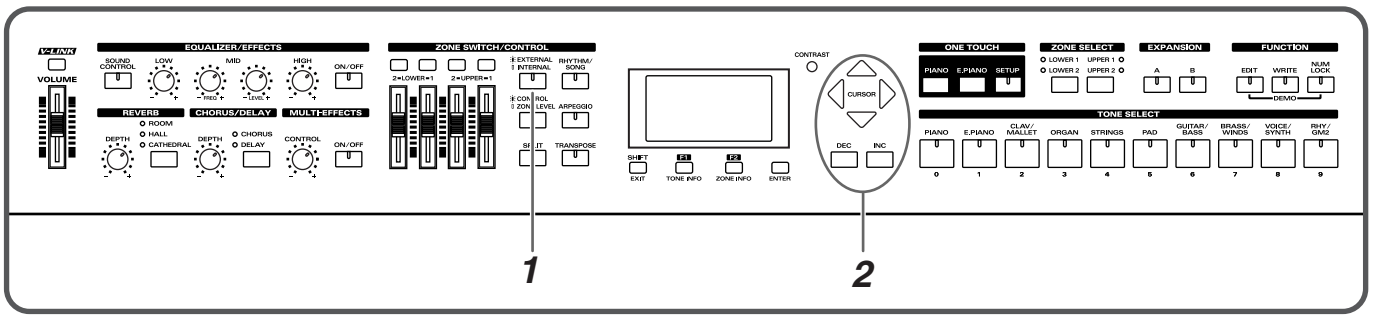


NOTE
Use a USB Cable no longer than 3 meters.

Selecting the MIDI Connector to Use for Output (MIDI OUT Port)

The RD-700SX is equipped with two MIDI connectors and one USB connector.

You can select which MIDI OUT connector or USB connector is used for outputting the signals for each individual zone.

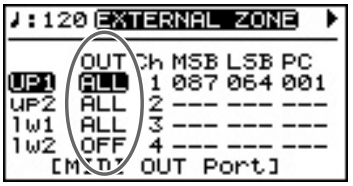


1

Press [EXTERNAL/INTERNAL], getting the indicator to light.

The EXTERNAL screen appears.

If "OUT" doesn't appear on screen, press CURSOR [◀] several times to display the following screen.



2

Press CURSOR [◀]/[▲]/[▶]/[▼] to move the cursor, then press [INC]/[DEC] to set the connector from which the MIDI messages of each zone are to be output.

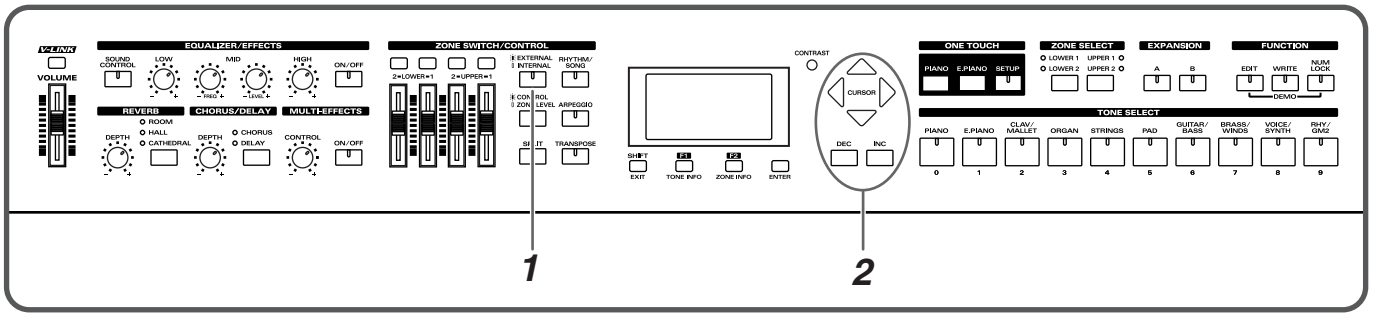
Part	Parameter	Settings	Description
UP1 (UPPER1)	OUT (MIDI OUT Port)	ALL, 1 (MIDI OUT 1), 2 (MIDI OUT 2), USB	The RD-700SX's performance data is transmitted from the selected connector.
UP2 (UPPER2)			
LW1 (LOWER1)			
LW1 (LOWER2)			

NOTE

When Rec Mode is set to ON in the Utility Rec Setting in Edit mode, the EXTERNAL screen as shown to the left is not displayed. Set Rec Mode to OFF when setting the MIDI Transmit channel (p. 101).

MIDI Send Channel Settings

When you have finished connecting the external MIDI device, match the keyboard's Transmit channel and the Receive channel for each of the external MIDI sound generator's Parts. Sounds is produced when the MIDI channels for the sending device (the RD-700SX) and the receiving device (the external MIDI sound generator) are set to the same MIDI channel.

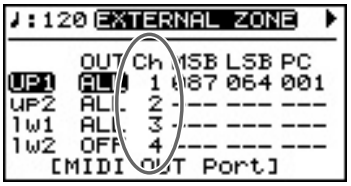


1

Press [EXTERNAL/INTERNAL], getting the indicator to light.

The EXTERNAL screen appears.

If "Ch" doesn't appear on screen, press CURSOR [◀] several times to display the following screen.



2

Press CURSOR [◀]/[▲]/[▶]/[▼] to move the cursor, then press [INC]/[DEC] to set the Transmit channel (Ch) for each part.

Part	Parameter	Settings	Description
UP1 (UPPER1)	Ch (MIDI OUT Channel)	1–16	RD-700SX performance data is sent over a selected channel.
UP2 (UPPER2)			
LW1 (LOWER1)			
LW1 (LOWER2)			

MEMO

For instructions on setting each of the external MIDI sound generator's Part's Receive channel, refer to the owner's manual for each device.

NOTE

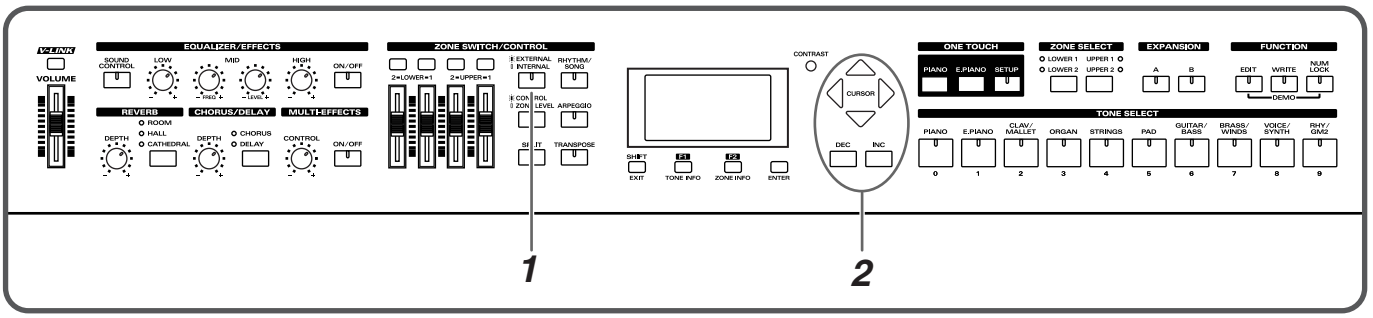
When Rec Mode is set to ON in the Utility Rec Setting in Edit mode, the EXTERNAL screen as shown to the left is not displayed. Set Rec Mode to OFF when setting the MIDI Transmit channel (p. 101).

MEMO

Part names for Parts in which ZONE SWITCH is set to OFF appear in the display in lowercase letters, such as "up1," "up2," "lw1," and "rw2." MIDI messages for Parts with the ZONE SWITCH set to OFF are not transmitted.

Selecting Sounds on an External MIDI Device

To switch the tones of an external MIDI device, the program number and the MSB/LSB of the Bank Select message are entered as numerical values on the RD-700SX.

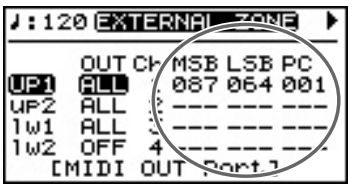


1

Press [EXTERNAL/INTERNAL], getting the indicator to light.

The EXTERNAL screen appears.

If "MSB" doesn't appear on screen, press CURSOR [◀] several times to display the following screen.



Parameter	Tx	Settings
OUT (MIDI OUT Port)	---	ALL, 1, 2, USB
Ch (MIDI Channel)	---	1–16
MSB (Bank Select MSB)	CC 00	0–127, --- (OFF)
LSB (Bank Select LSB)	CC 32	0–127, --- (OFF)
PC (Program Change)	Program Change	0–127, --- (OFF)

2

Press CURSOR [◀]/[▲]/[▶]/[▼] to move the cursor, then press [INC]/[DEC] to set the MSB, LSB, and PC for each part.

Pressing [INC] and [DEC] simultaneously switches the settings value to "--- (OFF)." When this setting is "--- (OFF)," bank select messages will not be transmitted.

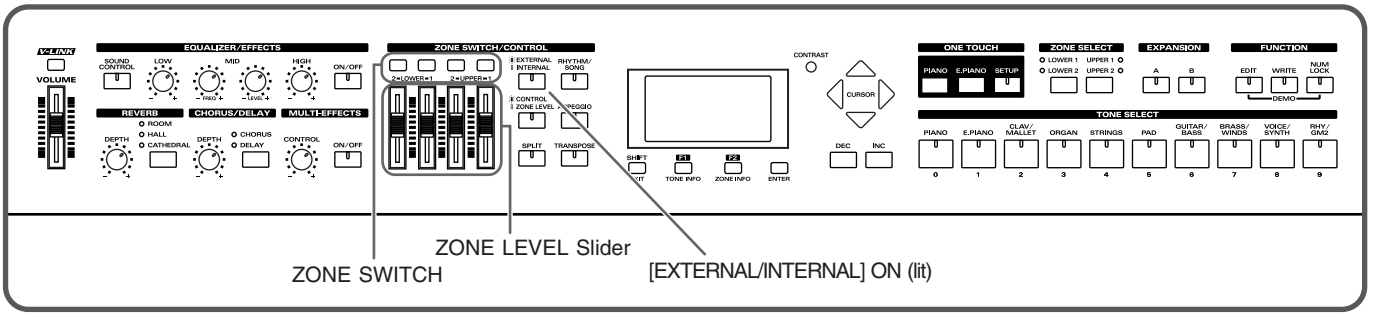
NOTE

When Rec Mode is set to ON in the Utility Rec Setting in Edit mode, the EXTERNAL screen as shown to the left is not displayed. Set Rec Mode to OFF when setting the MIDI Transmit channel (p. 101).

NOTE

If the external MIDI sound generator transmits a Program number or a Bank number for which no Tone has been assigned, an alternate Tone may be selected, or in some cases, there may be no sound played. If you do not want to transmit the Program number or Bank Select, use the procedure described left to set the PC/MSB/LSB to "--- (OFF)."

Adjusting the Volume of Each Zone (EXTERNAL Zone)



When the [EXTERNAL/INTERNAL] indicator is on, you can use the ZONE SWITCH and ZONE LEVEL sliders to control the EXTERNAL Zone in the same way as with the INTERNAL Zone (p. 28).

ZONE SWITCH

This setting determines whether or not MIDI messages, including the information for Note On in the EXTERNAL zone, are to be transmitted from MIDI OUT when the [EXTERNAL/INTERNAL] indicator is lit.

When the ZONE SWITCH indicator for a part is lit (on), MIDI messages are transmitted from MIDI OUT when the keys for that part are played.

When the ZONE SWITCH indicator for a part is not lighted (off), MIDI messages are not transmitted from MIDI OUT even when the keys for that part are played.

ZONE SWITCH will turn on or off each time you press it.

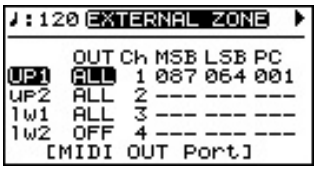
ZONE LEVEL Slider

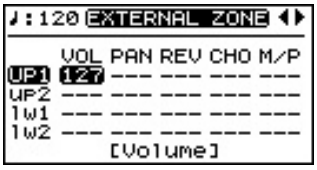
When the [EXTERNAL/INTERNAL] indicator is on, ZONE LEVEL sliders adjust the volume level of each of the EXTERNAL Zone.

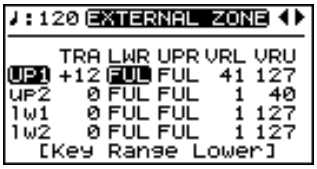
☞ **"Adjust the Volume Level for Individual Zones (ZONE SWITCH/ZONE LEVEL Slider)"** (p. 41)

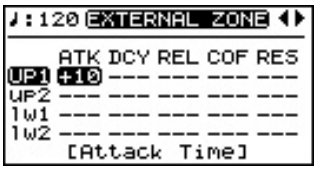
Detailed Settings for Transmitted Parts (EXTERNAL)

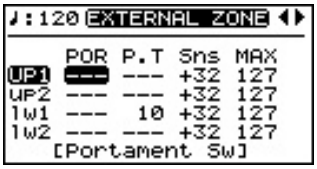
After pressing [EXTERNAL/INTERNAL], you can then set the following parameters affecting EXTERNAL Zone.

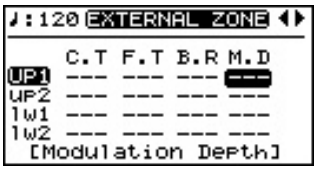


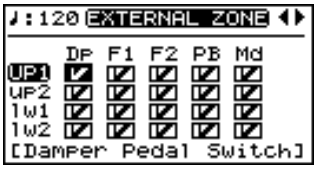


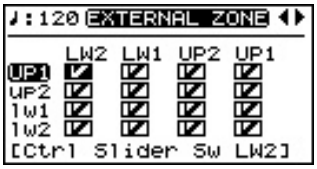


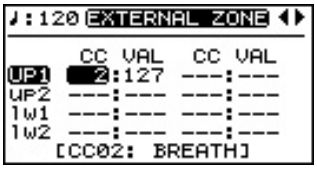












How to Make Settings

1. **Press [EXTERNAL/INTERNAL], getting the indicator to light.**
   The RD-700SX is set to control the external MIDI devices.

   NOTE
   When Rec Mode is set to ON in the Utility Rec Setting in Edit mode, the EXTERNAL screen as shown to the left is not displayed. Set Rec Mode to OFF when setting the MIDI Transmit channel (p. 101).

2. **Press CURSOR [◀]/[▲]/[▶]/[▼] to move the cursor to the parameter to be set.**
   You can get the cursor to move more rapidly by holding down the CURSOR button that points in the direction you want the cursor to move while you also press the CURSOR button that points in the opposite direction.

3. **Press [INC]/[DEC] to set the value.**
   Pressing [INC] and [DEC] simultaneously sets the value to "--- (OFF)."

Adjusting the Volume and Pan (Volume/Pan)

Sets the volume and the panning (localizes sound image) for each of the Tones.
The Volume setting is mainly used when multiple tones are playing to obtain the desired balance in volume between each part.
The Pan setting positions the sound image of each part when the output is in stereo. With an increase in the value for L, more of the sound will be heard as coming from the left side. Similarly, more of the sound will originate at the right if the value of R is increased. When set to 0, the sound is heard as coming from the center.

Parameter	TX CC#	Value
VOL (Volume)	CC07	--- (OFF), 0–127
PAN (Pan)	CC10	L64–0–63R, --- (OFF)

Setting the Amount of Reverb and Chorus (Reverb/Chorus)

This sets the depth of the reverb and chorus effects.

Parameter	TX CC#	Value
REV (Reverb)	CC91	--- (OFF), 0-127
CHO (Chorus)	CC93	

Playing Sound Monophonically (Mono/Poly)

Specifies whether the tone will play polyphonically (POLY) or monophonically (MONO).

The MONO setting is effective when playing a solo instrument tone such as sax or flute.

Parameter	Value
M/P (Mono/Poly)	--- (OFF), M (MONO, CC126), P (POLY, CC127)

Setting the Transposition for Each Individual Zone (Transpose)

You can perform with each zone transposed to a different pitch.

When multiple zones are set to on, you can create a richer sound by setting the two Tones to different octaves. Also, if the Keyboard Mode is set to Split and you are playing a bass Tone in the lower Part, you can use the Transpose function to play the bass at a lower pitch.

Parameter	Value
TRA (Transpose)	-48 – 0 –+48

Setting the Key Range (Key Range Lower/Upper)

Set the keyboard range in which each Zone will sound.

This can be used to make notes in different areas of the keyboard play different Tones.

Specify the lower limit (LWR) and upper limit (UPR) of the key range being set.

You can also set this by pressing a specific key and then pressing [ENTER].

Parameter	Value
LWR (Key Range Lower)	A0–C8
UPR (Key Range Upper)	

NOTE

This is effective only when [SPLIT] is on (p. 38) in the key range settings.

MEMO

"FUL" is displayed when [SPLIT] is set to OFF. In this case, [SPLIT] is automatically switched on when the value is changed to something other than "FUL" with [INC]/[DEC].

NOTE

You cannot set the key range's lower limit higher than the upper limit, nor can you set the upper limit below the lower limit.

MEMO

You can use ZONE SWITCH for each individual zone to select whether or not MIDI Note messages for that zone are to be transmitted (p. 64).

Changing the Range That Plays in Response to the Velocity (Velocity Range Lower/Upper)

This specifies the lower limit (LWR) and upper limit (UPR) of the range in which the tone is played according to how strongly the keys are played (velocity). Make this setting when you want the tone to change depending on the key velocity.

Parameter	Value
VRL (Velocity Range Lower)	1–127
VRU (Velocity Range Upper)	

NOTE

If you set the minimum velocity to a value above the upper limit, or set the maximum velocity to a value that is below the lower limit, the setting for the other limit is changed to the same value.

Changing Tone Elements (ATK/DCY/REL/COF/RES)

You can make changes in tones by adjusting the settings of the following four elements.

ATK (Attack Time Offset):

The time it takes after the key is pressed for a sound to reach full volume.

DCY (Decay Time Offset):

The time it is to take following the attack for the volume to decrease.

REL (Release Time Offset):

The time it takes after the key is released for a sound to become inaudible.

COF (Cutoff Offset):

Adjusts how much the filter is opened.

RES (Resonance Offset):

This boosts the portions in the region around the cutoff frequency, lending a particular quality to the sound. Excessively high settings can produce oscillation, causing the sound to distort.

Parameter	TX CC#	Value	Description
ATK	CC73	--- (OFF), -64–+63	Higher values produce a milder attack; lower values produce a sharper attack.
DCY	CC75		The time it takes for the volume to fall increases as the value is raised; lowering the value decreases the decay time.
REL	CC73		Higher values produce longer decay; set lower values for a clear-cut sound.
COF	CC74		Higher values brighten the sound; lower values make the sound seem darker.
RES	CC71		Higher value makes the special quality of the sound stronger; lower value reduce these characteristics.

Smoothly Changing the Pitch (Portamento)

Portamento is a function that causes the pitch to change smoothly from one note to the next note played.

The Portamento Time setting determines the time for the change in pitch when the portamento effect is applied to the sound. Higher settings will cause the pitch change to the next note to take more time.

Parameter	TX CC#	Value
POR (Portamento Switch)	CC65	---, OFF, ON
P.T (Portamento Time)	CC5	---, 0–127

Setting the Change in Volume According to the Force Used to Play the Keyboard (Velocity Sensitivity/Max)

Set the change in volume that occurs in response to the force used to play the keyboard (velocity) and the maximum value of the change.

Parameter	Value	Description
SNS (Velocity Sensitivity)	-63–+63	This setting determines how the volume changes in response to the velocity. The volume is increased as the keyboard is played with greater force when a positive Value is used; when a negative value is selected, the volume decreases as the keys are played with greater force. If this is set to "0," the volume will not be affected by the strength of your playing on the keyboard.
MAX (Velocity Max)	1–127	Maximum velocity value for the corresponding key. Lowering this value will produce softer notes even if you play the keyboard strongly.

Changing the Pitch (Coarse Tune/Fine Tune)

This makes settings related to the pitch of each Part.

Parameter	RPN	Description	Value
C.T (Coarse Tune)	00H/ 02H	Sets the sound's pitch in semitone units.	--- (OFF), -48– +48 (+/- 4 octaves)
F.T (Fine Tune)	00H/ 02H	Sets the sound's pitch in units of one cent.	--- (OFF), -50– +50 (+/- 50 cents),

MEMO

1 cent = 1/100 semitone

Setting the Range for the Change in Pitch with the Bender (Bend Range)

This sets the amount of pitch change that will occur when you move the Pitch Bend lever (4 octaves).

Parameter	RPN	Value
B.R (Bend Range)	00H/00H	--- (OFF), 0–48 (semitone)

Setting the Amount of Modulation Applied (Modulation Depth)

This sets the depth of the effect when the Modulation lever is tilted.

Parameter	RPN	Value
M.D (Modulation Depth)	00H/05H	--- (OFF), 0–127st

Turning Each Controller On and Off

These settings determine whether the external MIDI device is controlled (ON), or not (OFF) by the pedals connected to each PEDAL jack, the slider, the Modulation lever, and the Bender.

Parameter	Description	Value
Dp	Damper pedal	ON, OFF
F1	Pedal connected to the FC1 jack	
F2	Pedal connected to the FC2 jack	
PB	Pitch Bender	
Md	Modulation Lever	
UP1	Control Slider (UP1)	
UP2	Control Slider (UP2)	
LW1	Control Slider (LW1)	
LW2	Control Slider (LW2)	

Transmitting the Control Change (USER CC/USER CC Value)

You can make two types of settings here, the Control Change message to be transmitted and the value for the Control Change.

Parameter	Value
CC1 (User CC1)	OFF, 0–127
Value (User CC1 Value)	
CC2 (User CC2)	
Value (User CC2 Value)	

Making Detailed Settings for Tones

Making Zone Settings (Zone Info)

The sixteen Parts played by the RD-700SX's internal sound generator are referred to as "Internal Parts."

Of the sixteen Internal Parts, you can select four of them to function as the four Parts (UPPER1, UPPER2, LOWER1, and LOWER2) which can be freely controlled with the RD-700SX's buttons and keyboard. These four Parts are collectively known as the "Zone."

You can perform operations like Split with the INTERNAL Zone very simply using the RD-700SX's keyboard, and you can make more detailed settings for the Zone as well.

NOTE

Depending on the tone selected, there may be parameters that cannot be altered.

How to Make Settings

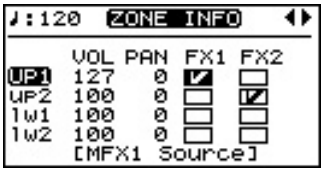
1. In the Tone screen, press [F2 (Zone Info)].

The [F2] is lit, and the Zone Info screen appears.

The names of zones that have Zone SW set to OFF are shown in lowercase letters.

2. Press CURSOR [◀]/[▶] to switch screens.

3. Press CURSOR [◀]/[▲]/[▶]/[▼] to move the cursor to the parameter to be set.



4. Press [INC]/[DEC] to set the value.

Pressing [INC] and [DEC] simultaneously sets that parameter to the standard default value.

5. When you finish making settings, press [F2], extinguishing its indicator.

You are returned to the Tone screen.

Selecting the Tone

When the zone to be set is selected, the name of the assigned tone appears.

You can select tone using the TONE SELECT buttons.

Parameter	Value
Tone	Refer to **"Tone List"** (p. 146)

Setting the Volume and Pan (Volume/Pan)

Sets the volume and the panning (localizes sound image) for each of the Zones.

The Volume setting is mainly used when multiple tones are playing to obtain the desired balance in volume between each zone.

The Pan setting localizes the sound image of each zone when the output is in stereo. With an increase in the value for L, more of the sound will be heard as coming from the left side. Similarly, more of the sound will originate at the right if the value of R is increased. When set to 0, the sound is heard as coming from the center.

Parameter	Value
VOL (Volume)	0–127
PAN	L64–0–R63

Setting the Zone to Which Multi-effects Are Applied (MFX1/MFX2 Source)

This setting determines the zone to which multi-effects are applied.

Parameter	Value
FX1 (MFX1 Source)	ON, OFF
FX2 (MFX2 Source)	

NOTE

Multi-effects can be applied to only one zone. Once one zone has been switched on, the same multi-effect is switched off in the other zones.

NOTE

You can apply either MFX1 or MFX2 (not both) to a zone. If both MFX1 and MFX2 are switched on for the same zone, MFX2 alone will be the one that is actually applied.

Setting the Transposition for Each Individual Zone (Transpose)

You can perform with each Zone transposed to a different pitch.

When multiple tones are playing, you can create a richer sound by setting the two Tones to different octaves. Also, if the Keyboard Mode is set to Split and you are playing a bass Tone in the lower Zone, you can use the Transpose function to play the bass at a lower pitch.

Parameter	Value
TRA (Transpose)	-48–0–+48

MEMO

You can also set the same degree of transposition for all parts with [TRANSPOSE]. For details, refer to **"Transposing the Key of the Keyboard ([TRANSPOSE])"** (p. 42).

Setting the Key Range for Each Zone (Key Range)

When [SPLIT] is pressed in normal performance conditions, the key range is divided at the Split Point, and you can play with two different tones on one keyboard.

Using Key Range allows you to make even more detailed key range settings.

This sets the lower and upper limit of the key range in each part.

After moving the cursor to the parameter to be set, you can make the setting by pressing the designated key and [ENTER].

Parameter	Value
LWR (Key Range Lower)	A0–C8
UPR (Key Range Upper)	

NOTE

This is effective only when [SPLIT] is on (p. 38) in the key range settings.

MEMO

"FUL" is displayed when [SPLIT] is set to OFF. In this case, [SPLIT] is automatically switched on when the value is changed to something other than "FUL" with [INC]/[DEC].

NOTE

You cannot set the key range's lower limit higher than the upper limit, nor can you set the upper limit below the lower limit.

NOTE

When the split point (p. 39) is changed, the Key Range value also changes.

Setting the Change in Volume According to the Force Used to Play the Keyboard (Velocity Range/Sens/Max)

This setting determines how the volume changes in response to the force used to play the keyboard (velocity) and the maximum value of the change.

NOTE

This setting is disregarded with certain tones.

Parameter	Value	Description
VRL (Velocity Range Lower)	1–127	This specifies the lower limit (VLW) and upper limit (VUP) of the range in which the tone is played according to the velocity. Make this setting when you want the tone to change depending on the key velocity.
VRU (Velocity Range Upper)	1–127	
Sns (Velocity Sensitivity)	-63–+63	This setting determines how the volume changes in response to the velocity. The volume is increased as the keyboard is played with greater force when a positive Value is used; when a negative value is selected, the volume decreases as the keys are played with greater force. If this is set to "0," the volume will not be affected by the strength of your playing on the keyboard.
Max (Velocity Max)	1–127	Maximum velocity value for the corresponding key. Lowering this value will produce softer notes even if you play the keyboard strongly.

Assigning Internal Parts to INTERNAL Zone (Part Assign)

This determines which internal Parts are assigned to the INTERNAL Zone.

Parameter	Value
P.A (Part Assign)	1–16

Turning the Controllers in Each Zone On and Off

These settings determine whether the pedals connected to each PEDAL jack (DaMPER, FC1, FC2), the Modulation lever, the Bender, and the Slides are used to control the Parts (ON), or not (OFF).

Parameter	Description	Value
Dp	Damper pedal	ON, OFF
F1	Pedal connected to the FC1 jack	
F2	Pedal connected to the FC2 jack	
PB	Pitch Bender	
Md	Modulation Lever	
UP1	Control Slider (UP1)	
UP2	Control Slider (UP2)	
LW1	Control Slider (LW1)	
LW2	Control Slider (LW2)	

Making Tone Settings (Tone Info)

You can make more detailed settings to the tones assigned to each of the Internal parts.

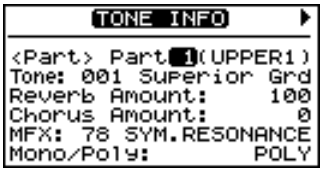
NOTE

In certain selected Tones, there may be parameters that cannot be changed.

How to Make Settings

1. In the Tone screen, press [F1(Tone Info)].

The [F1] is lit, and the Tone Info screen appears.



2. Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

3. Press [INC]/[DEC] to set the value.

4. When you finish making settings, press [F1], extinguishing its indicator.

You are returned to the Tone screen.

NOTE

The following parameters cannot be changed when the selected tone is used as the Virtual Tonewheel tone.

- Mono/Poly
- Coarse Tune
- Fine Tune
- Portamento Switch
- Portamento Time
- Attack Time
- Release Time
- Cutoff
- Resonance
- Decay Time

Selecting the Part and the Tone to Be Set (Part, Tone)

Choose the Part and the Tone for which you want to make settings.

Parameter	Value
<Part>	1–16 Parts assigned to the INTERNAL Zone are indicated by a marker (UPPER1) appearing after the part name.
Tone	When the part to be set is selected, the name of the assigned tone appears. You can select tone using the TONE SELECT buttons.

Setting the Reverb/Chorus Depth (Reverb/Chorus Amount)

This sets the depth of the reverb and chorus effects.

NOTE

When this value is set to "0," no reverb or chorus effect is applied when the REVERB [DEPTH] or CHORUS [DEPTH] knob is turned.

Parameter	Value
Reverb Amount	0–127
Chorus Amount	

NOTE

The manner in which the effect is applied will differ depending on the settings for MFX Source (p. 86) and MFX1 Dest (p. 87).

- When MFX1 Dest is set to ALL PART
  The Reverb/Chorus Amount setting for the part selected for MFX Source applies to all parts. However, when the MFX Source is set to FIXED, the Reverb/Chorus Amount setting for UPPER 1 applies to all parts.
- When MFX1 Dest is set to SAME MFX
  The Reverb/Chorus Amount setting for the part selected for MFX Source applies to parts assigned the same MFX Type as the part selected for MFX Source.

Changing the Effect Applied to the Tone (MFX Type)

This sets the multi-effect applied to the tone.

NOTE

The MFX selected here may not be applied with certain MFX Source and MFX Dest settings. For details, refer to **"MFX Source"** (p. 86), **"MFX Dest"** (p. 87).

Parameter	Value
MFX TYPE	Refer to **"Effect/Parameter List"** (p. 112).

Playing Sound Monophonically (Mono/Poly)

Specifies whether the tone will play polyphonically (POLY) or monophonically (MONO).
The MONO setting is effective when playing a solo instrument tone such as sax or flute.
Additionally, when this is set to "MONO LEGATO," you can have monophonic performances played legato. Legato is a playing style in which the spaces between notes are smoothed, creating a flowing feel with no borders between the notes. This creates a smooth transition between notes, which is effective when you wish to simulate the hammering-on and pulling-off techniques used by a guitarist.

Parameter	Value	Description
Mono/Poly	MONO	Only the last-played note will sound.
	POLY	Two or more notes can be played simultaneously.
	MONO LEGATO	Legato is applied to monophonic performances.

Changing the Pitch (Coarse Tune/Fine Tune)

This sets the pitch of the tone.

Parameter	Value	Description
Coarse Tune	-48–+48 (+/- 4 octaves)	Sets the sound's pitch in semitone units.
Fine Tune	-50–+50 (+/- 50 cents)	Sets the sound's pitch in units of one cent.

MEMO

1 cent = 1/100 semitone

NOTE

With some Tones, there may be ranges in which the pitch does not change as intended.

Creating Smooth Pitch Changes (Portamento Switch/Time)

Portamento is a function that causes the pitch to change smoothly from one note to the next note played.
With the Mono/Poly parameter set to MONO, portamento is especially effective when simulating playing techniques such as a violin glissandos.
The Portamento Time setting determines the time for the change in pitch when the portamento effect is applied to the sound. Higher settings will cause the pitch change to the next note to take more time.

Parameter	Value
Portamento Sw	ON, OFF
Portamento Time	0–127

Changing Tone Elements (Attack Time/Release Time/Cutoff/Resonance/Decay Time)

You can make changes in tones by adjusting the settings of the following four elements.

Attack Time Offset:

The time it takes after the key is pressed for a sound to reach full volume.

Release Time Offset:

The time it takes after the key is released for a sound to become inaudible.

Cutoff Offset:

Adjusts how much the filter is opened.

Resonance Offset:

Emphasizes the overtones in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort.

Decay Time Offset:

The time it is to take following the attack for the volume to decrease.

NOTE

Making abrupt changes in the settings values may cause the sound to become distorted or overly loud. Carefully monitor volume levels while making the settings.

Parameter	Value	Description
Attack Time (Offset)	-64–+63	Higher values produce a milder attack; lower values produce a sharper attack.
Release Time (Offset)		Higher values produce longer decay; set lower values for a clear-cut sound
Cutoff (Offset)		Higher values brighten the sound; lower values make the sound seem darker.
Resonance (Offset)		Higher value makes the special quality of the sound stronger; lower value reduce these characteristics.
Decay Time (Offset)		The time it takes for the volume to fall increases as the value is raised; lowering the value decreases the decay time.

NOTE

With some Tones, the effect does not work as intended.

Changing the Bend Range (Bend Range)

This sets the amount of pitch change that will occur when you move the Pitch Bend lever (2 octaves).

Parameter	Value
Bend Range	0–24 (semitone)

Making Detailed Settings for the ONE TOUCH Tones

Making Detailed Settings for the Piano Tones (Piano Edit)

You can make more detailed settings to fashion just the Tones you want using the piano Tone selected by pressing ONE TOUCH [PIANO] (p. 32).
This function is called "Piano Edit."
Furthermore, you can save up to two of the changed settings.
The Piano Edit settings and ONE TOUCH [PIANO] Type A or B is stored in memory.

NOTE
When ONE TOUCH [PIANO] is pressed, all settings other than the Piano Edit settings are switched to their status at the time the RD-700SX's power was turned on. Store any arrangements of settings that you want to keep in Setup (p. 58).

Making the settings

1. **Press [F1] in the ONE TOUCH [PIANO] screen to select the type you want to set.**
   Pressing [F1] toggles you between Types A and B.

2. **Press [F2 (EDIT)].**
   A Piano Edit screen will appear.

3. **Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.**
   Move the cursor to one of the following menus and press [ENTER], then select the parameter you want to set in the screen that follows.
   1. Key Touch Edit
   2. Micro Tune Edit
   3. Sym. Resonance
   4. Tone Modify
   5. Initialize

4. **Press [INC]/[DEC] to set the value.**

5. **If you want to save the setting, press [F1 (WRITE)].**
   The confirmation message appears. Press [F1 (WRITE)] to save the settings. If you want to cancel, press [EXIT].

6. **When you finish making settings, press [EXIT].**
   You are returned to the ONE TOUCH [PIANO] screen.

NOTE
Depending on the piano Tone selected, this setting may not be available.

Selecting the Piano Sound

This chooses the piano Tone to be selected when ONE TOUCH [PIANO] is pressed.
There are 20 Tones to choose from.

Changing the Width of the Sound (Stereo Width)

Adjusts the spaciousness of the sound.

Parameter	Value	Description
Stereo Width	CENTER, L01-01R–L63-63R	The higher the value set, the wider the sound is spread out.

Changing the Sound's Nuance (Nuance)

This changes the Tone's subtle nuances by altering the phase of the left and right sounds.

Parameter	Value
Nuance	TYPE1, 2, 3

NOTE
This effect is difficult to hear when headphones are used.

Changing the Sense of Space Surrounding the Sound (Ambience)

Changing the sound's ambience allows you give your performances a sound resembling that obtained in a wide open space.

Parameter	Value	Description
Ambience	OFF, 1–5	The effect becomes deeper as the value is increased.

Changing the Amount of Reverb Effect (Reverb Level)

Adjusts the depth of the Reverb effect. This functions the same way as the REVERB knob, but the setting made here can be called up simply by pressing ONE TOUCH [PIANO].

Parameter	Value	Description
Reverb Level	0–127	The reverb effect becomes stronger as the value is increased.

Opening/Closing the Piano Lid (Lid)

Reproduces the way the brightness of a grand piano's sound is affected by how much the piano's lid is opened.

Parameter	Value	Description
Lid	1–6	The lid is opened more as the value is increased, creating a brighter sound.

Changing the Characteristics of the Mic (Mic Type/Distance)

This changes the sound of the instrument in a manner similar to that accomplished in recordings of miked acoustic instruments like pianos, where the sound is changed by using mics with different characteristics and changing the mic placement. This function is a virtual reproduction of these phenomena.

Parameter	Value	Description
Mic Type	OFF	No microphone is used.
	CONDENSER	This is a simulation of a small condenser mic used for musical instruments. The mic features a very bright high end.
	DYNAMIC	This simulates the type of dynamic mic used widely for vocals and instruments.
Distance	0–10	The distance to the microphone decreases as the value is raised, and the distance increases as the value is lowered.

Adjusting the Resonant Sounds When the Keys are Pressed (String Resonance)

When the keys are pressed on an acoustic piano, the strings for keys that are already pressed also vibrate sympathetically. The function used to reproduce is called "String Resonance."

Parameter	Value	Description
String Resonance	OFF, 1–5	Increasing the value will increase the amount of effect.

Making the Midrange Equalizer Settings (EQ SW/EQ Gain/EQ Frequency/EQ Q)

This sets the midrange equalization.

Parameter	Value	Description
EQ SW	ON, OFF	This determines whether the following EQ Gain, EQ Frequency, and EQ Q settings are enabled (ON), or not (OFF).
EQ Gain	-12.0–+12.0 dB	Change the amount of equalization (gain).
EQ Frequency	100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000Hz	Set Frequency Point. Changes the level of the selected frequency range, with frequency selected here at the center.
EQ Q	0.5, 1.0, 2.0, 4.0, 8.0	Adjusts the "Q" (bandwidth) of equalization. The higher the value, the narrower the range of frequencies that are affected.

Changing the Key Touch (Key Touch)

You can make advanced settings for the touch used for the keys.

Parameter	Value	Description
Key Touch	SUPER LIGHT	An even lighter setting than LIGHT.
	LIGHT	This sets the keyboard to a light touch. You can achieve fortissimo (ff) play with a less forceful touch than usual, so the keyboard feels lighter. This setting makes it easy to play, even for children.
	MEDIUM	This sets the keyboard to the standard touch. You can play with the most natural touch. This is the closest to the touch of an acoustic piano.
	HEAVY	This sets the keyboard to a heavy touch. You have to finger the keyboard more forcefully than usual in order to play fortissimo (ff), so the keyboard touch feels heavier. Dynamic fingering adds even more feeling to what you play.
	SUPER HEAVY	An even heavier setting than HEAVY.

NOTE

This setting is switched automatically according to the value of Key Touch Offset, which follows.

NOTE

Changing this setting also changes the Key Touch setting in Edit Mode (p. 83).

Making Fine Adjustments to the Keyboard Touch (Key Touch Offset)

This setting provides even more precise adjustment of the key touch than available with the Key Touch setting alone.
This allows you to adjust between Key Touch settings values.

Parameter	Value	Description
Key Touch Offset	-10–+9	The touch sensitivity becomes heavier as the value increases.

NOTE

When this settings value continues into the positive or negative direction, the Key Touch's five-step value is switched automatically in accordance with that value.

Setting a Constant Volume Level in Response to the Playing Force (Velocity)

This sets the sound to play at a fixed volume, regardless of the strength used to play the keyboard (the velocity).

Parameter	Value	Description
Velocity	REAL	Volume levels and the way sounds are played change in response to the velocity.
	1–127	Values for the volume and the way sounds are played remain constant.

Changing the Timing of Sounds in Response to the Velocity (Velocity Delay Sens)

This sets the interval from the time the key is played to when the sound is produced.
As the value is decreased, the timing of the sound is delayed more when more force is used to play the keys.
As the value is increased, the timing of the sound is delayed more when less force is used to play the keys.

Parameter	Value
Velo Delay Sens	-63–+63

Changing the Touch Sensitivity According to the Key Range (Velocity Keyfollow Sens)

This setting changes the touch sensitivity according to the key range being used.
As the value is increased, the touch becomes heavier in the upper registers, and lighter in the lower keys.

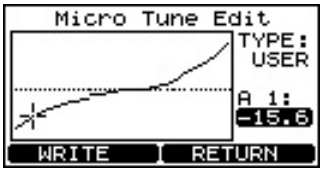
Parameter	Value
Velo Keyfolw Sens	-63–+63

Finely Adjusting the Tuning (Micro Tune)

This procedure allows micro-tuning of each individual key.

Parameter	Value
Type	PRST (PRESET), USER, 1–14

1. **Select "2. Micro Tune Edit" in Step 3 of the piano edit settings procedure (p. 73), then press [ENTER].**
   The Micro Tune Edit screen appears.



   Pressing [EXIT] returns you to the immediately preceding screen.

2. **Press CURSOR [▲] to move the cursor to the "TYPE."**
3. **Press [INC]/[DEC] to select the type.**
4. **Press CURSOR [▼] to move the cursor to the numerical value (Offset).**
5. **Press the key to specify it as the one you want to tune.**
6. **Press [INC]/[DEC] to adjust the value.**
7. **If you want to save the setting, press [F1 (WRITE)].**
   The setting is saved to "USER."

Adjusting Resonance when the Damper Pedal is Depressed (Sympathetic Resonance)

You can adjust this resonance when the damper pedal is depressed.
On an acoustic piano, holding down the damper pedal will allow the remaining strings to resonate in sympathy with the sounds that you played from the keyboard, adding a rich resonance. This feature reproduces that resonance sound.

Parameter	Value	Description
Resonance Depth	0–10	The volume of the resonance increases as the value is raised.
Resonance Pitch		Adjusts the amount of the wavering effect. The wavering effect increases as the value is raised.
Resonance Level		The volume of the wavering effect increases as the value is raised.

Changing Sound Characteristics (Tone Modify)

You can make changes in tones by adjusting the settings of the elements.

Decay Time Offset:

The time it is to take following the attack for the volume to decrease.

Cutoff Offset:

Adjusts how much the filter is opened.

Release Time Offset:

The time it takes after the key is released for a sound to become inaudible.

Parameter	Value	Description
Decay Time (Offset)	-64–+63	The time it takes for the volume to fall increases as the value is raised; lowering the value decreases the decay.
Cutoff (Offset)		Higher values brighten the sound; lower values make the sound seem darker.
Release Time (Offset)		Higher values produce longer decay; set lower values for a clear-cut sound.

NOTE

With certain tones, the effect may be difficult to distinguish.

Restore the settings to initial conditions (Initialize)

This restores the One Touch E. Piano settings to their initial conditions.

1. **In Step 3 of the Piano Edit settings instructions (p. 73), select "5. Initialize" and press [ENTER].**
   To cancel the Initialize, press [EXIT].
2. **Press [ENTER].**
   The confirmation message appears.
3. **Press [ENTER] once again.**
   The ONE TOUCH [PIANO] tones are initialized.

Making Detailed Settings for the E.Piano Tones (E.Piano Edit)

You can make more detailed settings to fashion just the Tones you want using the E.piano Tone selected by pressing ONE TOUCH [E.PIANO] (p. 32).

This function is called "E.Piano Edit."

The settings made in E.Piano Edit are stored to ONE TOUCH [E.PIANO].

NOTE

When ONE TOUCH [E.PIANO] is pressed, all settings other than the E.Piano Edit settings are switched to their status at the time the RD-700SX's power was turned on. Store any arrangements of settings that you want to keep in Setup (p. 58).

Making the settings

1. **Press [F1] in the ONE TOUCH [E.PIANO] screen to select the type you want to set.**
2. **Press [F2].**

3. **Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.**
4. **Press [INC]/[DEC] to set the value.**
5. **If you want to save the setting, press [F1 (WRITE)].**
   The confirmation message appears. Press [F1 (WRITE)] to save the settings. If you want to cancel, press [EXIT].
6. **When you finish making settings, press [EXIT].**
   You are returned to the ONE TOUCH [E.PIANO] screen.

Selecting the E.Piano Sound

This chooses the piano Tone to be selected when ONE TOUCH [E.PIANO] is pressed.
There are 21 Tones to choose from.

Selecting the Amp Type(AMP Type)

In the past, the sounds of electric pianos and similar instruments were always played through some kind of instrument amp.
The function simulates the sonic characteristics of these instrument amps.

Parameter	Value	Description
AMP Type	OFF	No amp is used.
	EP-AMP	This simulates the amp section of a vintage electric piano featuring a built-in amp.
	GTR-AMP	This simulates a multipurpose guitar amp.

Applying Effects to the Sound (Effect Type/Depth/Rate)

You can use effects that are often used with electric pianos.

Parameter	Value	Description
Effect Type	OFF, CHORUS, TRERMOLO, AUTO-WAH, PHASER	Selecting the type of effects.
Effect Depth	0–127	This sets the amount of effect applied to the sound. Increasing the value deepens the effect, while the effect gets weaker at lower values.
Effect Rate	1–200	This sets the rate of the effect's cycling. Increasing the value deepens the effect, while the effect gets weaker at lower values.

Making the Midrange Equalizer Settings (EQ-SW/EQ Gain/ EQ Frequency/EQ Q)

This sets the midrange equalization.

Parameter	Value	Description
EQ SW	ON, OFF	This determines whether the following EQ-Freq, EQ Gain, and EQ Q settings are enabled (ON), or not (OFF).
EQ Gain	-12.0–+12.0 dB	Change the amount of equalization (gain).
EQ Frequency	100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600, 2000, 2500, 3150, 4000Hz	Set Frequency Point. Changes the level of the selected frequency range, with frequency selected here at the center.
EQ Q	0.5, 1.0, 2.0, 4.0, 8.0	Adjusts the "Q" (bandwidth) of equalization. The higher the value, the narrower the range of frequencies that are affected.

NOTE

Depending on the piano Tone selected, this setting may not be available.

Changing Sound Characteristics (Tone Modify)

You can make changes in tones by adjusting the settings of the elements.

Decay Time Offset:

The time it is to take following the attack for the volume to decrease.

Cutoff Offset:

Adjusts how much the filter is opened.

Resonance Offset:

Emphasizes the overtones in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort

Release Time Offset:

The time it takes after the key is released for a sound to become inaudible.

NOTE

Making abrupt changes in the settings values may cause the sound to become distorted or overly loud. Carefully monitor volume levels while making the settings.

Parameter	Value	Description
Decay Time (Offset)	-64–+63	The time it takes for the volume to fall increases as the value is raised; lowering the value decreases the decay time.
Cutoff (Offset)	-64–+63	Higher values brighten the sound; lower values make the sound seem darker.
Resonance (Offset)	-64–+63	Higher value makes the special quality of the sound stronger; lower value reduce these characteristics.
Release Time (Offset)	-64–+63	Higher values produce longer decay; set lower values for a clear-cut sound

Detailed Settings for Each Function ([EDIT])

The process of changing tone parameters to create the tones you like, and changing the settings for various functions is known as "editing."

When [EDIT] is pressed and the indicator is lit, the RD-700SX switches to "Edit mode."

You can save edited settings to Setups.

Edited settings are discarded when the RD-700SX's power is turned off, so be sure that any settings you want to keep are saved to a Setup. For details, refer to **"Storing Settings to Setups ([WRITE])"** (p. 58).

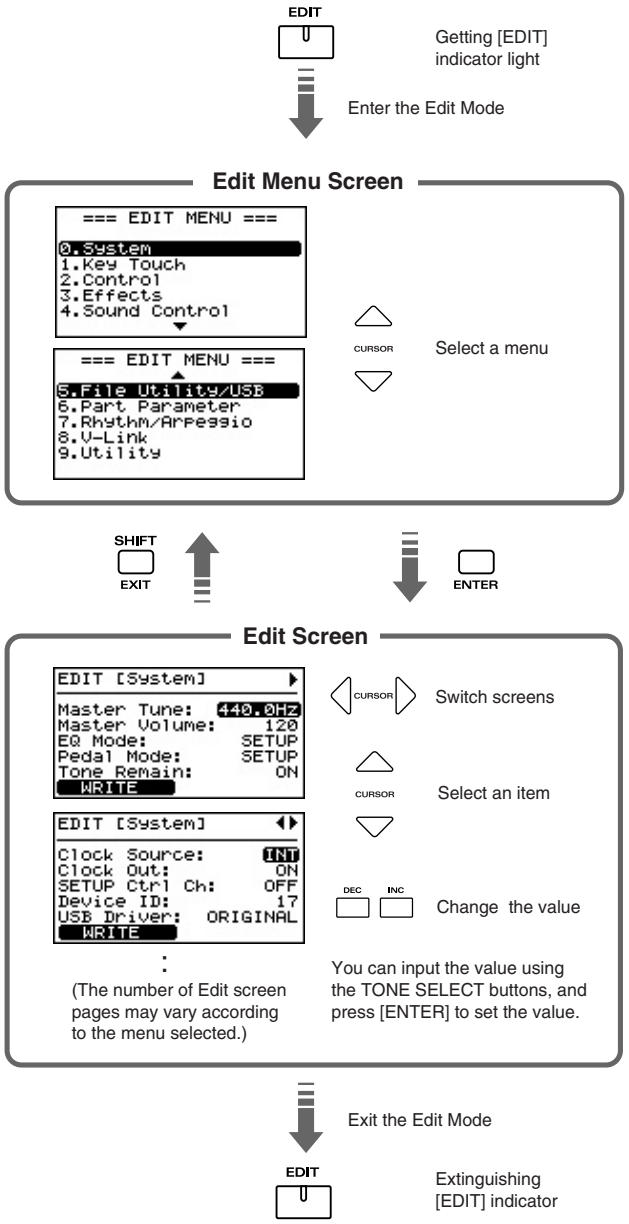
System function (0. System) settings are saved the instant a change is made in any of the parameter values. Therefore, no changes to the settings are lost, even when the power is turned off.

Parameters That Can Be Set

You can set the following parameters in Edit mode.

0.System	Master Tune	p. 27
	Master Volume	p. 80
	EQ Mode	p. 80
	Pedal Mode	p. 80
	Tone Remain	p. 81
	Clock Source	p. 81
	Clock Out	p. 81
	SETUP Control Channel	p. 81
	Device ID	p. 81
	USB Driver	p. 106
	Damper Polarity	p. 81
	FC1 Polarity	p. 81
	FC2 Polarity	p. 81
	Display Mode	p. 82
	Part Mode	p. 82
	Temperament	p. 82
	Temperament Key	p. 82
	Stretch Tune	p. 82
	Rx GM/GM2 System ON	p. 82
	Rx GS Reset	p. 82
1. Key Touch	Key Touch	p. 83
	Key Touch Offset	p. 83
	Velocity	p. 84
	Velocity Delay Sensitivity	p. 84
	Velocity Keyfollow Sensitivity	p. 84
2. Control	FC1 Pedal Assign	p. 85
	FC2 Pedal Assign	p. 85
	Control Knob Assign	p. 85
	Slider Assign	p. 85
	Harmonic Bar	p. 54
3. Effects	MFX Structure	p. 86
	MFX1 Source	p. 86
	MFX2 Source	p. 86
	MFX1 Destination	p. 87
	Type	p. 87
	MFX Control	p. 87
	MFX Parameters	p. 87
	Reverb Type	p. 87
	Reverb Parameters	p. 87
	Chorus Type	p. 88
	Output Select	p. 88
	Chorus Parameters	p. 88
4. Sound Control	Type	p. 89
	Split Frequency L	p. 89
	Split Frequency H	p. 89
	Level	p. 89
	Attack Time	p. 89
	Release Time	p. 89
	Threshold	p. 89
	Ratio	p. 89
5. File Utility/ USB	Save SETUP File	p. 89
	Load SETUP File	p. 90
	File Delete	p. 91
	USB Setting	p. 104
	USB Storage	p. 105
6. Part Parameter	Part	p. 92
	Tone	p. 92
	Receive Channel	p. 92
	Volume	p. 92
	Pan	p. 92
	Voice Reserve	p. 92
	Part Switch	p. 92
	MFX Switch	p. 92
	Rx Bank Select	p. 92
	Rx Program Change	p. 92
	Rx Modulation	p. 92
	Rx Pitch Bend	p. 92
	Rx Volume	p. 92
	Rx Hold -1	p. 92
	Rx Pan	p. 92
	Rx Expression	p. 92
7. Rhythm/ Arpeggio	**Rhythm**	
	Rhythm Tempo	p. 93
	Rhythm Volume	p. 93
	Rhythm Pattern	p. 93
	Rhythm Set	p. 94
	Rhythm Set Change	p. 94
	Rhythm Accent	p. 94
	Rhythm/Arpeggio Grid	p. 94
	Rhythm/Arpeggio Duration	p. 94
	MIDI Out Port	p. 94
	MIDI Out Channel	p. 94
	Arpeggio	
	Arpeggio Tempo	p. 95
	Arpeggio Style	p. 95
	Arpeggio Motif	p. 95
	Arpeggio Zone	p. 96
	Arpeggio Key Range	p. 96
	Arpeggio Velocity	p. 96
	Rhythm/Arpeggio Grid	p. 94
	Rhythm/Arpeggio Duration	p. 94
	Arpeggio Accent	p. 96
	Arpeggio Octave Range	p. 96
	Arpeggio Hold	p. 96
8. V-Link	V-Link Mode	p. 98
	V-Link Tx Channel	p. 98
	V-Link Out Port	p. 98
	Key Range	p. 98
	Lowest No.	p. 98
	Local ON/OFF	p. 98
9. Utility	Rec Setting	p. 101
	Bulk Dump Temporary	p. 99
	Bulk Dump SETUP	p. 99
	Factory Reset Current	p. 100
	Factory Reset All	p. 100

Setting Parameters



MEMO

You can press [F1(WRITE)] to save following settings as common settings to RD-700SX.

- 0. System
- 4. Sound Control
- 8. V-Link

However, following settings are not saved.

- V-Link On or Off
- Sound Control On or Off

Making System Settings (System)

Functions that affect the RD-700SX's overall operating environment are called "System functions."

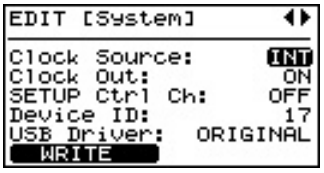
How to Make Settings

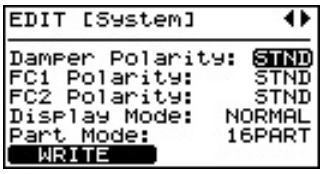
1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲] to select "0.System."

3. Press [ENTER] to display the Edit screen.





4. Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

5. Press [INC]/[DEC] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

MEMO

If you want to save this settings, press [F1(WRITE)]. Settings saved in the RD-700SX are not deleted even when the power is turned off. However, following settings are not memorized.

Device ID→p. 81

MEMO

For more on the following system function parameters, refer to the corresponding pages.

Master Tune →p. 27 USB Driver →p. 106

Adjusting the Volume (Master Volume)

Adjusts the volume of the entire RD-700SX.

Parameter	Value
Master Volume	0-127

Preventing Equalizer Settings from Being Switched (EQ Mode)

You can store different equalizer settings (p. 45) for each individual Setup (p. 56).

This setting determines whether or not the Setup equalizer settings values are to be changed when Setups are switched.

Parameter	Value	Description
EQ Mode	SETUP	Equalizer settings change when Setups are switched.
	SYSTEM	Equalizer settings do not change when Setups are switched.

MEMO

When this is set to SYSTEM, a " EQ " is displayed in the upper right of each screen.

Preventing Pedal Settings from Being Switched (Pedal Mode)

You can store separate pedal settings (p. 85) for each Setup (p. 56).

This setting determines whether or not the pedal settings are switched to the values stored in the setup you are switching to.

Parameter	Value	Description
Pedal Mode	SETUP	Pedal settings change when Setups are switched.
	SYSTEM	Pedal settings do not change when Setups are switched.

MEMO

When this is set to SYSTEM, a " PD " is displayed in the upper right of each screen.

Assigning the Pedal Function When Pedal Mode is Set to "SYSTEM"

When this is set to SYSTEM, "Pedal Setting" appears in the lower right of the screen. Pressing [F2] at this point calls up the screen for the function assigned to the pedal.

Parameter	Value	Function/Parameter Setting Changed
FC1 FC2	OFF	No control
	CC01–CC31, CC33–CC95	Controller Numbers 1–31, 33–95
	96: BEND-UP	Raises the pitch (up to a maximum of four octaves).
	97: BEND-DOWN	Lowers the pitch (up to a maximum of four octaves).
	98: AFTER TOUCH	After Touch
	99: OCTAVE UP	Each pedal press raises the key range in octave steps (up to 4 octaves higher).
	100: OCTAVE DWN	Each pedal press lowers the key range in octave steps (up to 4 octaves lower).
	101: START/STOP	Starts/Stops the external sequencer.
	102: TAP TEMPO	The tempo will be modified to the interval at which you press the pedal.
	103: RHY PLY/STP	Starts and stops Rhythms (p. 48).
	104: ARPEGGIO SW	Performs the same function as [ARPEGGIO]. Switches the Arpeggio (p. 46) on and off.
	105: MFX ON/OFF	Performs the same function as MULTI EFFECTS [ON/OFF]. Switches the multi-effects (p. 52) on and off.
	106: MFX CONTROL	Adjusting the amount of the multi-effects (p. 52).
	107: SNG PLY/STP	Starts and stops the song (p. 50).
	108: SETUP-UP	Switches the Setups in ascending order.
	109: SETUP-DOWN	Switches the Setups in descending order.

Retaining the Current Tone Even When Tones Are Switched (Tone Remain)

This setting specifies whether the currently heard sound will continue (ON) or not (OFF) when another tone is selected.

Parameter	Value
Tone Remain	OFF, ON

NOTE

Effects settings change as soon as you switch to a new Tone, without being influenced by the Tone Remain setting. Because of this, certain effects settings can cause notes that were until then sounding to no longer be heard, even though Tone Remain has been set to ON.

NOTE

Even if Tone Remain is set to ON, the sound of the current tone is not carried over when changing from a Virtual Tonewheel tone to a non-Virtual Tonewheel tone.

Changing the Clock (Timing) Source (Clock Source)

You can control the tempo from an external MIDI device. Set this to MIDI when synchronizing to the clock (tempo) of an external MIDI device.

Parameter	Value	Description
Clock Source	INT	Synchronized to the internal clock
	MIDI	Synchronized to the external MIDI device's clock. The tempo indication " ♩ : " changes to " M: " for each screen.

MEMO

Internal tempo settings are made in the Tone screen (p. 29), the Rhythm Edit screen (p. 93), the Arpeggio Edit Screen (p. 93), Song/Rhythm/Arpeggio screen (p. 29), and Virtual Tonewheel Screen (p. 29).

NOTE

The tempo cannot be set if Clock Source is set to MIDI without there being any external MIDI device connected. This can result in Arpeggios (p. 46) and Rhythms (p. 48) not sounding, and may change the manner in which certain effects are applied.

Transmitting Synchronization Messages (Clock Out)

This setting determines whether or not the MIDI messages necessary to synchronize the RD-700SX with external devices are to be transmitted from the MIDI OUT connector.

Parameter	Value
Clock Out	ON, OFF

Using Program Change Messages to Switch Setups (SETUP Control Channel)

You can switch the RD-700SX's Setups with MIDI messages from an external MIDI device.

Set the MIDI Receive channel for receiving the MIDI messages (Program Changes) from the external MIDI device to be used for switching Setups.

When not switching Setups from an external MIDI device, set this to OFF.

Parameter	Value
Control Channel	1–16, OFF

NOTE

When the Control Channel settings are transmitted along with the part's MIDI receive channel (p. 92), switching of Setups takes priority over the switching of tones.

For more information about Switching Setups, refer to **"Switching Setups"** (p. 103).

Setting the Device ID Number (Device ID)

The Device ID number is an identification number used when transmitting and receiving MIDI Exclusive messages. When transmitting Exclusive messages, the device ID numbers of the corresponding devices must be matched.

Parameter	Value
Device ID	17–32

Switching the Pedal's Polarity (Pedal/FC1/FC2 Polarity)

Switch the polarity of pedals connected to the RD-700SX.

This can be set individually for each of the Pedal jacks on the rear panel (FC1, FC2, DAMPER).

On some pedals, the electrical signal output by the pedal when it is pressed or released is the opposite of other pedals. If your pedal has an effect opposite of what you expect, set this parameter to Reverse.

If you are using a Roland pedal (that has no polarity switch), set this parameter to STANDARD.

Parameter	Value
Damper	STND (STANDARD), REV (REVERSE)
FC1	
FC2	

Selecting the Display Appearance (Display Mode)

This switches the appearance of the display. When "INVERT" is selected, the blue and white portions of the display are the reverse of what they are when "NORMAL" is selected.

Parameter	Value
Display Mode	NORMAL, INVERT

Selecting the Number of Parts (Part Mode)

This selects the number of parts for the RD-700SX.

When set to "16PART+PERF," the performance on the keyboard is not affected by MIDI messages from the MIDI IN connector or song data played by the RD-700SX. This is useful when you want to perform on the keyboard while playing song data with the RD-700SX.

Parameter	Value
Part Mode	16PART, 16PART+PERF (Performance)

Setting the Tuning Method (Temperament/Key)

This sets the tuning and keynote (tonic).

Most modern songs are composed and played with the assumption that equal temperament will be used, but when classical music was composed, there were a wide variety of other tuning systems in existence. Playing a composition with its original tuning lets you enjoy the sonorities of the chords that the composer originally intended.

When playing with tuning other than equal temperament, you need to specify the keynote for tuning the song to be performed (that is, the note that corresponds to C for a major key or to A for a minor key).

If you choose an equal temperament, there's no need to select a keynote.

Parameter	Value	Description
Temperament	EQUAL	Equal Temperament. This tuning divides an octave into 12 equal parts. Every interval produces about the same amount of slight dissonance.
	JUST MAJ	Just (Major). This scale eliminates dissonance in fifths and thirds. It is unsuited to playing melodies and cannot be transposed, but is capable of beautiful sonorities.
	JUST MIN	Just (Minor). The scales of the major and minor just intonations are different. You can get the same effect with the minor scale as with the major scale.
	PYTHAGOREAN	This scale devised by the philosopher Pythagoras eliminates dissonance in fourths and fifths. Dissonance is produced by third-interval chords, but melodies are euphonious.
	KIRNBERGER	This scale is a modification of the meantone and just intonations that permits greater freedom in transposition to other keys. Performances are possible in all keys (III).
	MEAN TONE	This scale makes some compromises in just intonation, enabling transposition to other keys.
	WERCKMEISTER	This is a combination of the mean tone and Pythagorean scales. Performances are possible in all keys (first technique, III).
	ARABIC	Arabic Scale. This scale is suitable for Arabic music.
Temperament Key	C, C#, D, Eb, E, F, F#, G, G#, A, Bb, B	Sets the keynote.

Precise Modification of Chord Sonorities (Stretch Tune)

Changes the pitch using the "stretch tuning" method typically used on acoustic pianos. This makes high-range sounds slightly higher in pitch, and low-range sounds slightly lower in pitch.

Parameter	Value	Description
Stretch Tune	OFF	No stretch tune.
	DEFAULT	This is the standard tuning curve.

Switching Between Reception of GM/GM2 System On and GS Reset

Specifies whether General MIDI System On, General MIDI 2 System On, or GS Reset messages from external MIDI devices will be received (ON) or not (OFF).

Parameter	Value
Rx. GM/GM2 System ON	ON, OFF
Rx. GS Reset	

Setting the Keyboard Touch (Key Touch)

You can make advanced settings for the touch used for the keys.

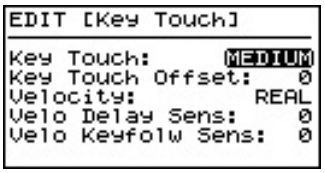
How to Make Settings

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "1.Key Touch."

3. Press [ENTER] to display the Edit screen.



4. Press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

5. Press [INC]/[DEC] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

Changing the Key Touch (Key Touch)

The setting below allows you to adjust the response you get from the keyboard when you finger the keys.

Parameter	Value	Description
Key Touch	SUPER LIGHT	An even lighter setting than LIGHT.
	LIGHT	This sets the keyboard to a light touch. You can achieve fortissimo (ff) play with a less forceful touch than usual, so the keyboard feels lighter. This setting makes it easy to play, even for children.
	MEDIUM	This sets the keyboard to the standard touch. You can play with the most natural touch. This is the closest to the touch of an acoustic piano.
	HEAVY	This sets the keyboard to a heavy touch. You have to finger the keyboard more forcefully than usual in order to play fortissimo (ff), so the keyboard touch feels heavier. Dynamic fingering adds even more feeling to what you play.
	SUPER HEAVY	An even heavier setting than HEAVY.

Making Fine Adjustments to the Keyboard Touch (Key Touch Offset)

This setting provides even more precise adjustment of the key touch than available with the Key Touch setting alone.

This allows you to adjust between Key Touch settings values.

Parameter	Value	Description
Key Touch Offset	-10– +9	The touch sensitivity becomes heavier as the value increases.

NOTE

When this settings value continues into the positive or negative direction, the Key Touch's five-step value is switched automatically in accordance with that value.

Setting a Constant Volume Level in Response to the Playing Force (Velocity)

This sets the sound to play at a fixed volume, regardless of the strength used to play the keyboard (the velocity).

Parameter	Value	Description
Velocity	REAL	Volume levels and the way sounds are played change in response to the velocity.
	1–127	Values for the volume and the way sounds are played remain constant.

Changing the Timing of Sounds in Response to the Velocity (Velocity Delay Sens)

This sets the interval from the time the key is played to when the sound is produced.

As the value is decreased, the timing of the sound is delayed more when more force is used to play the keys.

As the value is increased, the timing of the sound is delayed more when less force is used to play the keys.

Parameter	Value
Velo Delay Sens	-63–+63

Changing the Touch Sensitivity According to the Key Range (Velocity Keyfollow Sens)

This setting changes the touch sensitivity according to the key range being used.

As the value is increased, the touch becomes heavier in the upper registers, and lighter in the lower keys.

Parameter	Value
Velo Keyfolw Sens	-63–+63

Pedal and MULTI EFFECTS [CONTROL] Knob Settings (Control)

You can change the functions assigned to the pedals, sliders, and MULTI EFFECTS [CONTROL] knob settings.

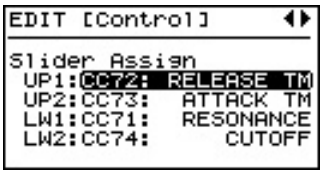
How to Make Settings

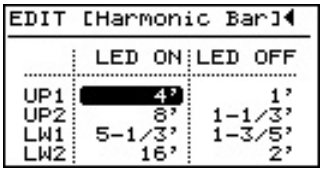
1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "2.Control/EQ."

3. Press [ENTER] to display the Edit screen.





4. Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

5. Press [INC]/[DEC] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

MEMO

For more on the following parameters, refer to the corresponding pages.

Harmonic Bar →p. 54

Assigning Functions to Pedals (FC1/FC2 Pedal Assign)

This setting determines the function of the pedal switches or expression pedals (such as the optional EV series) that are connected to the FC1 and FC2 jacks on the rear panel.

Parameter	Value	Function/Parameter Setting Changed
FC1/FC2 (Pedal Assign)	OFF	No control
	CC01–CC31, CC33–CC95	Controller Numbers 1–31, 33–95
	96: BEND-UP	Raises the pitch (up to a maximum of four octaves).
	97: BEND-DWN	Lowers the pitch (up to a maximum of four octaves).
	98: AFTER TOUCH	After Touch
	99: OCT-UP	Each pedal press raises the key range in octave steps (up to 4 octaves higher).
	100: OCT-DOWN	Each pedal press lowers the key range in octave steps (up to 4 octaves lower).
	101: START/STOP	Starts/Stops the external sequencer.
	102: TAP-TEMPO	The tempo will be modified to the interval at which you press the pedal.
	103: RHY PLY/STP	Starts and stops Rhythms (p. 48).
	104: ARPEGGIO SW	Performs the same function as [ARPEGGIO]. Switches the Arpeggio (p. 46) on and off.
	105: MFX ON/OFF	Performs the same function as MULTI EFFECTS [ON/OFF]. Switches the multi-effects (p. 52) on and off.
	106: MFX CONTROL	Adjusts the amount of multi-effects (p. 52).
	107: SNG PLY/STP	Starts/Stops the song (p. 50).

Changing the MULTI EFFECTS [CONTROL] Knob Settings (Control Knob Assign)

Normally, MULTI EFECTS [CONTROL] knob is used for making settings that adjust the multi-effects (MFX1 Control), but they can also be used for settings that change the way tones are played or the tempo.

Parameter	Value	Description
Ctrl Knob (Control Knob Assign)	OFF	No control
	MFX1 CTRL	MULTI EFECTS [CONTROL] knob adjusts the MFX Control of MFX1 applied.
	MFX2 CTRL	MULTI EFECTS [CONTROL] knob adjusts the MFX Control of MFX2 applied.
	MFX1 &2 CTRL	MULTI EFECTS [CONTROL] knob adjusts the MFX Control of MFX1 and MFX2 applied.
	TEMPO	MULTI EFECTS [CONTROL] knob changes the tempo.

Changing the Slider Settings (Slider Assign)

This sets the function of the slider when [CONTROL/ZONE LEVEL] is set to “CONTROL” (lit).

Parameter	Value	Description
Slider Assign (UP1/UP2/ LW1/LW2)	OFF	No control
	CC01–CC31, CC33–CC95	Controller Numbers 1-31, 33-95
	96: BEND-UP	Raises the pitch in semitone units (up to a maximum of four octaves).
	97: BEND-DOWN	Lowers the pitch in semitone units (up to a maximum of four octaves).
	98: AFTER TOUCH	After Touch

Setting the Multi-Effects, Reverb, and Chorus Effects (Effects)

The RD-700SX contains four effects processors: two multi-effects, chorus, and reverb. Settings can be made separately for each effects processor.

NOTE

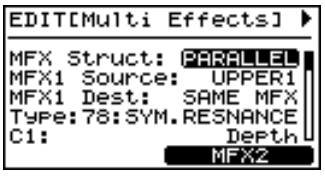
Making abrupt changes in the settings values may cause the sound to become distorted or overly loud. Carefully monitor volume levels while making the settings.

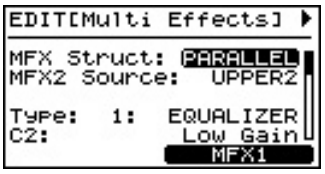
How to Make Settings

1. **Press [EDIT], getting the indicator to light.**
   The Edit Menu screen appears.

2. **Press CURSOR [▲]/[▼] to select "3.Effects."**

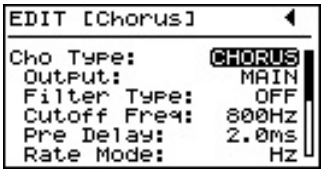
3. **Press [ENTER] to display the Edit screen.**
   Press [F2] to switch between MFX1 and MFX2.





"REVERB" Settings Screen

"CHORUS" Settings Screen



4. **Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.**

5. **Press [INC]/[DEC] to set the value.**

6. **When you have finished making the settings, press [EDIT], extinguishing its indicator.**
   You are returned to the Tone screen.

Making Multi-Effects Settings

The Multi-effects are multi-purpose effects that completely change the sound type by changing the sound itself. Contained are 125 different effects types; select and use the type that suits your aims. In addition to effects types composed of simple effects such as Distortion, Flanger, and other such effects, you can also set up a wide variety of other effects, even connecting effects in series or in parallel. Additionally, while some multi-effects types feature chorus and reverb, the reverb (p. 43) and chorus (p. 43) effects discussed later in this volume are handled separately.

MFX Structure

This setting determines how MFX1 and MFX2 are connected.

Parameter	Value	Description
MFX Structure	PARALEL	The effects are connected in parallel.
	SERIAL	The effects are connected serially.

MFX Source

On the RD-700SX, the MFX Type can be stored along with the tones assigned to each part.
This settings determine which multi-effects are used.

Parameter	Value	Description
MFX1/2 Source	FIXED ("OFF" at MFX2 Source)	The multi-effect doesn't change even when you switch to a different tone. This setting is convenient when you want to use the same multi-effect, even when changing tones.
	UPPER1, UPPER2, LOWER, RHYTHM	The MFX Type of the Tone assigned to the selected part is applied.

NOTE

When MFX Source is set to FIXED, the MFX Dest setting is fixed at ALL PART, and the multi-effects are applied to all parts.

MFX Dest

This settings determine the part to which the MFX1 are applied.

Parameter	Value	Description
MFX Dest (Destination)	SOURCE PART	The multi-effect is applied only to the part selected in MFX1 Source.
	SAME MFX	The multi-effect is applied to parts assigned the same multi-effect as the part selected in MFX1 Source.
	ALL PART	The multi-effects are applied to all parts.

Type

Select the Multi-Effects Type.

There are 125 different multi-effects available. Refer to the Effect/Parameter List (p. 112).

Parameter	Value
Type	Refer to **"Effect/Parameter List"** (p. 112).

NOTE

When MFX Source is set to UPPER1, UPPER2, LOWER1, or LOWER2, the Tone Info MFX Type settings (p. 71) also change.

MFX Control

You can make changes to the multi-effect parameters in real time with the MULTI EFFECTS [CONTROL] knob. Here, select the parameter to be changed.

The parameters that can be changed vary with the different multi-effects selected in Type.

The available choices depend on the Type setting.

Parameter	Value
C1/2 (MFX Control)	Refer to **"Effect/Parameter List"** (p. 112).

Other Multi-effects Settings

You can make even more detailed settings to the multi-effects. When you select the multi-effects Type, a number of parameters particular to that type are displayed. Refer to the **"Effect/Parameter List"** (p. 112) for the values that can be set.

NOTE

Multi-effects are not applied to parts in which the Part Parameter MFX Switch is set to "OFF."

MEMO

With some types of multi-effects, lowering the volume of the Part to which the multi-effects are added may end up changing the amount of the effect applied. In such cases, adjust the Level in MFX parameters.

NOTE

Use caution before setting the Feedback parameter to its maximum or minimum values, since such settings may cause the sound to play continuously.

Making Reverb Settings

Reverb adds the reverberation characteristics of halls or auditoriums. Six different types are offered, so you can select and use the type that suits your purpose.

MEMO

You can set the amount of reverb applied separately for each individual tone (p. 71).

Reverb Type

Select the reverb type.

When you change the Reverb Type, the Reverb parameters will be automatically adjusted to the optimal values. Rather than setting the reverb parameters one by one, you can make the settings more easily by first setting the Reverb Type and then changing only the necessary parameters.

The way the [REVERB] indicators light changes with the selected type.

Parameter	Value	Description
Reverb Type	OFF	No reverb is used. The indicator does not light.
	REVERB	Normal Reverb. The "HALL" indicator flashes.
	ROOM	Simulates the reverberation of room interiors. It produces a well-defined and spacious reverberation. The "ROOM" indicator remains lit.
	HALL	Simulates the reverberation exhibited by hall. It provides a deeper reverberation than the Room reverbs. The "HALL" indicator remains lit.
	PLATE	Simulates a plate reverb unit (a type of artificial reverb that utilized a metal plate). The "ROOM" indicator flashes.
	GM2 REVERB	This is a GM2 reverb. The "CATHEDRAL" indicator flashes.
	CATHEDRAL	This reproduces the reverb found in a church cathedral. The "CATHEDRAL" indicator remains lit.

Other Reverb Settings

You can make even more detailed reverb settings.

When you select a Reverb Type, a number of parameters unique to that type are displayed. Refer to p. 145 for the values that can be set.

Setting Chorus and Delay

Chorus adds depth and spaciousness to the sound. You can select whether to use this as a chorus effect or a delay effect.

MEMO

You can set the amount of Chorus applied separately for each individual tone (p. 71).

Chorus Type

You can select the chorus type.

When you change the Chorus Type, the Chorus parameters will be automatically adjusted to the optimal values. Rather than setting the chorus parameters one by one, you can make the settings more easily by first setting the Chorus Type and then changing only the necessary parameters.

The way the [CHORUS/DELAY] indicators light changes with the selected type.

Parameter	Value	Description
Chorus Type	OFF	Chorus or Delay is not used. The indicator does not light.
	CHORUS	Normal Chorus. The "CHORUS" indicator remains lit.
	DELAY	Normal Delay. The "DELAY" indicator remains lit.
	GM2 CHORUS	This is a GM2 reverb. The "CHORUS" indicator flashes.

Selecting the Output Destination (OUT PUT SELECT)

This selects the output mode for the chorus sound.

Parameter	Value	Description
Output SELECT	MAIN	The chorus sound is output without being passed through the reverb. The chorus sound without the reverb applied to it is mixed with the reverb sound.
	REVERB	The chorus sound is output with reverb applied to it.
	MAIN+ REVERB	The chorus sound without the reverb applied to it is mixed with the chorus sound to which reverb has been applied.

Other Chorus Settings

You can make even more detailed chorus/delay settings.

When you select a Chorus Type, a number of parameters unique to that type are displayed. Refer to p. 144 for the values that can be set.

Making the Sound Control Settings (Sound Control)

This is a stereo compressor (limiter) that is applied to the final output.

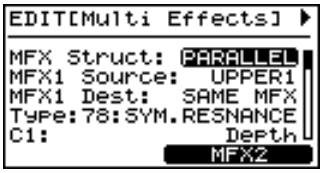
With separate settings for the high-frequency range, midrange, and low-frequency range, this reduces inconsistencies in volume levels by compressing the sound when the volume exceeds a preset volume level.

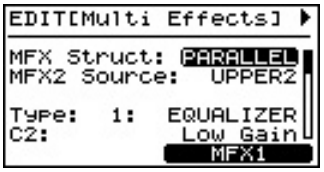
How to Make Settings

1. **Press [EDIT], getting the indicator to light.**
   The Edit Menu screen appears.

2. **Press CURSOR [▲]/[▼] to select "4.Sound Control."**

3. **Press [ENTER] to display the Edit screen.**





4. **Press CURSOR [▲] to select "Type."**

5. **Press [INC]/[DEC] to set the type of compressor.**

6. **Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.**
   With certain parameters, pressing [F2 (L-M-H)] selects the low-frequency range, midrange, or high-frequency range.

7. **Press [INC]/[DEC] to set the value.**

8. **If you want to save this settings, press [F1(WRITE)].**
   The settings are written to Sound Control Type "USER."

9. **When you have finished making the settings, press [EDIT], extinguishing its indicator.**
   You are returned to the Tone screen.

MEMO

Settings saved in the RD-700SX are not deleted even when the power is turned off.

Selecting the Type of Compressor (Sound Control Type)

When you change the this parameter, the Sound Control parameters will be automatically adjusted to the optimal values. You can make the settings easily by first setting the Sound Control Type and then changing only the necessary parameters.

Parameter	Value	Description
Type (Sound Control Type)	HARD COMP	Applies strong compression.
	SOFT COMP	Applies mild compression.
	LOW BOOST	Boosts the low end.
	MID BOOST	Boosts the midrange.
	HI BOOST	Boosts the high end.
	USER	The saved settings are written.

Detailed Settings of Compressor

Parameter	Value	Description
Split Freq L	200, 250, 315, 400, 500, 630, 800 [Hz]	This sets the frequency separating the low-frequency range (Lo) and midrange (MID).
Split Freq H	2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]	This sets the frequency separating the high-frequency range (HI) and midrange (MID).
Level	0–24dB (1dB/1Step)	Output Level
Attack Time	0–100ms	This sets the time it takes until the level is compressed after the input exceeds the THRESHOLD.
Release Time	50–5000ms	This sets the time it takes for the compression to be released after the input falls below the THRESHOLD.
Threshold	-36dB–0dB (1dB/1step)	This sets the level at which compression begins.
Ratio	1:1.0, 1:1.1, 1:1.2. 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF	Compression Ratio

Managing Setup Files (File Utility/USB)

The RD-700SX features a memory in which you can save the RD-700SX's Setup settings. You can also connect a computer using a USB cable to save files to the computer and to load files from the computer to the RD-700SX.

MEMO

For more on using USB in managing setup files, refer to **"Connecting to Your Computer via USB (USB Mode)"** (p. 104).

Saving Setup Files to the Memory (Save SETUP File)

A single, individual file containing a collection of 100 setups registered to the RD-700SX is called a "setup file." You can save these setup files to the RD-700SX's memory.

MEMO

The Setup files you've saved in memory can be transferred to a computer that's been connected using a USB cable and stored there (p. 105).

MEMO

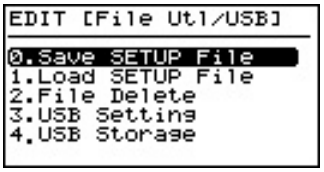
If you want to save the changed settings of a system parameter, memorize settings by pressing [F1 (WRITE)], then save an setup file.

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "5.File Utility/USB," then press [ENTER].

The Edit screen appears.



3. Press CURSOR [▲]/[▼] to select "0. SAVE SETUP File," then press [ENTER].

The following screen appears.

4. Press CURSOR [◀]/[▶] to move the cursor to the positions where the characters are to be input.

5. Press [INC]/[DEC] to enter the characters.

Names can consist of up to 16 characters.

The following characters are available.

space ! # $ % & ' ( ) + , - . 0–9 ; = @ A–Z [ ] ^ _ ` a–z { } ~

When [F2] is pressed, a single-character blank space is inserted; pressing [F1] deletes one character.

6. Repeat steps 4–5 to input the name.

7. When you have finished determining the name for the new Setup file, press [ENTER].

The setup files are saved in memory.

NOTE

"Saving..." appears in the display while the save is in progress. **Be sure never to turn off the power.**

MEMO

If a file with the same name has already been saved, the confirmation message "Overwrite OK?" appears. To overwrite the file, press [ENTER]; to save the file under a different name, press [EXIT].

8. Press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

Calling Up Setup Files from Memory (Load SETUP File)

Use this procedure to call up setup files that have been saved in memory.

NOTE

The current settings are erased when a setup file is called up. Be sure to save you would like to keep first before calling up.

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "5.File Utility/USB," then press [ENTER].

The Edit screen appears.

3. Press CURSOR [▲]/[▼] to select "1. Load SETUP File," then press [ENTER].

The following screen appears.

4. When loading System parameter settings, press [F2 (System)] to check in the check box.

MEMO

System Parameter is following settings.

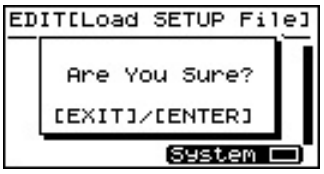
- System settings (p. 79)
- Sound Control Settings (p. 88)
- V-Link Settings (p. 97)
- Favorite Setup Settings (p. 57)
- ONE TOUCH [PIANO] and [E.PIANO] Settings (p. 73)

MEMO

The system parameter is memorized by only the setup file saved after pressing [F1 (WRITE)] to memorize a setup to RD-700SX.

5. Use CURSOR [▲]/[▼] to select the file you want to call up, then press [ENTER].

The confirmation message appears.



If you do not want to load the Setup file, press [EXIT].

6. Press [ENTER] once again to load the setup file.

The file is loaded into the RD-700SX.

NOTE

Be sure never to turn off the power while the load is in progress.

MEMO

If you load a file with a name that contains characters that cannot be displayed by the RD-700SX, the file name is displayed as "?."

7. Press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

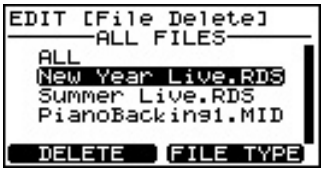
Deleting Files from Memory (File Delete)

This procedure deletes Setup files and song data loaded from computers that have been saved in memory.

1. Press [EDIT], getting the indicator to light.
The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "5.File Utility/USB," then press [ENTER].
The Edit screen appears.

3. Press CURSOR [▲]/[▼] to select "2. File Delete," then press [ENTER].
The following screen appears.



4. Press [F2] to select the type of file to be deleted.
The file type switches each time [F2] is pressed.

Parameter	Value
File Type	ALL FILES
	SETUP
	SMF

5. Use CURSOR [▲]/[▼] to select the file you want to delete.

6. Press [F1 (DELETE)].
The confirmation message appears.

If you do not want to delete the file, press [EXIT].

7. Press [ENTER] to delete the file.

8. Press [EDIT], extinguishing its indicator.
You are returned to the Tone screen.

Setting MIDI Receive Parts (Part Parameter)

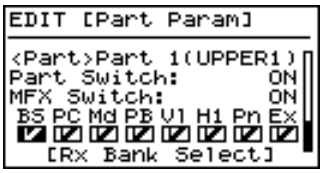
The sixteen Parts played by the RD-700SX's internal sound generator are referred to as "Internal Parts."
When connecting an external MIDI device to a sequencer or other device, by assigning the Receive channel to an Internal Part you can receive MIDI messages from the external MIDI device and control the Internal Parts.
These parameters determine how each Part will receive MIDI messages.

How to Make Settings

1. Press [EDIT], getting the indicator to light.
The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "6. Part Parameter."

3. Press [ENTER] to display the Edit screen.



4. Press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

5. Press [INC]/[DEC] to set the value.

6. When you have finished making the settings, press [EDIT], extinguishing its indicator.
You are returned to the Tone screen.

Selecting the Part to Be Set (Part/Tone)

Choose the Part for which you want to make settings.

Parameter	Value
Part	1-16 Parts assigned to the INTERNAL Zone are indicated by a marker (UPPER1) appearing after the part name.
Tone	When the Part to be set is selected, the name of the assigned tone appears. You can select tone using the TONE SELECT buttons. For more on the Tone, refer to **"Tone List"** (p. 146)

Setting the Receive Channel (Receive Channel)

When using MIDI messages from an external MIDI device to play the RD-700SX, set the Receive channels for each of the RD-700SX's parts so they're matched up with the channels that'll be used for transmission by the external MIDI device.

Parameter	Value
Receive Channel	1–16

Setting the Volume and Pan (Volume/Pan)

Sets the volume and the panning (localizes sound image) for each of the Tones.

The Volume setting is mainly used when multiple tones are playing to obtain the desired balance in volume between each part.

The Pan setting localizes the sound image of each part when the output is in stereo. With an increase in the value for L, more of the sound will be heard as coming from the left side. Similarly, more of the sound will originate at the right if the value of R is increased. When set to 0, the sound is heard as coming from the center.

Parameter	Value
Volume	0–127
Pan	L64–0–63R

Setting the Required Polyphony (Voice Reserve)

The RD-700SX has a maximum polyphony (the number of sounds, or "voices" that can be produced simultaneously by the sound generator) of 128 voices.

This setting specifies the number of voices that will be reserved for each Part when more than 128 voices are played simultaneously. For example if Voice Reserve is set to 6 for Part 1, Part 1 will always have 6 notes of sound-producing capacity available to it even if a total of more than 128 notes (total for all Parts) are being requested.

You can make separate Voice Reserve settings for each individual Part.

Parameter	Value
Voice Reserve	0–64 * The figure in parentheses before the settings value shows the remaining number of voices that can be set. It is not possible for the settings of all Parts to total an amount greater than 64.

Preventing Parts from Being Played (Part Switch)

Sets the part on or off.

Parameter	Value
Part Switch	ON, OFF

Making the Effect ON/OFF Settings (MFX Switch)

This setting determines whether the multi-effects are applied (ON), or not (OFF).

For example, with the MFX Dest setting (p. 87) set to "ALL" (multi-effects are applied to all parts), multi-effects are not applied to the parts for which this is set to "OFF."

Parameter	Value
MFX Switch	OFF, ON

Setting Reception and Blocking of MIDI Messages from External MIDI Controllers

You can change the RD-700SX's tones by reception of MIDI messages generated through the actions of modulation levers, pedals, knobs, and other such external MIDI devices controls.

You can set whether to have the following MIDI messages received (ON), or not (OFF) individually in each part.

Parameter	Description	Value
BS	Rx.Bank Select	ON, OFF
PC	Rx.Program Change	
Md	Rx.Modulation	
PB	Rx.Pitch Bend	
Vl	Rx.Volume	
H1	Rx.Hold-1	
Pn	Rx.Pan	
Ex	Rx.Expression	

Making the Rhythm and Arpeggio Settings (Rhythm/Arpeggio)

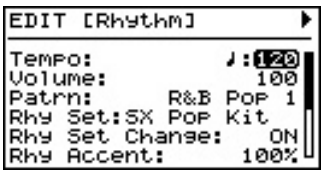
How to Make Settings

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "7.Rhythm/ Arpeggio."

3. Press [ENTER] to display the Edit screen.



4. Press CURSOR [◀]/[▶] to switch screens.

5. Press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

6. Press [INC]/[DEC] to set the value.

7. When you have finished making the settings, press [EDIT], extinguishing its indicator.

You are returned to the Tone screen.

Making the rhythm Settings

The RD-700SX features internal drum patterns complementing Jazz, Rock, and other various musical genres. This kind of drum pattern is called a "Rhythm."

MEMO

For more about switching Rhythms on and off, refer to **"Playing Rhythm ([RHYTHM/SONG])"** (p. 48).

Adjusting the Tempo (Tempo)

Specify the tempo of the Rhythm.

NOTE

The RD-700SX has only one tempo setting. Once you change the setting, the tempo indicated in the Tone screen and the tempo setting for the arpeggiator (p. 47) both change.

Parameter	Value
Tempo	10–250

MEMO

The way Rhythm is played and the tempo display may differ with some Rhythm Patterns.

MEMO

With Clock Source (p. 81) set to MIDI, "M:" appears in the display, and the RD-700SX is synchronized to the tempo of the external MIDI device. The tempo cannot be changed with the RD-700SX when "M:" is indicated.

Adjusting the Volume (Rhythm Volume)

Adjusts the volume of the rhythm.

Parameter	Value
Volume	0–127

Changing Patterns (Rhythm Pattern)

This selects the rhythm pattern. Select from 185 options.

Parameter	Value
Patrn	Refer to **"Rhythm Pattern List"** (p. 153).

MEMO

You can also change a rhythm's pattern in the **"Song/Rhythm/ Arpeggio screen"** (p. 49).

Changing the Drum Set (Rhythm Set)

You can change a rhythm's drum set (set of drum and percussion tones).

Parameter	Value
Rhy Set	Refer to **"Rhythm Set List"** (p. 149).

MEMO

You can select Tones other than Rhythm Sets.

MEMO

When this setting is changed, the Part 10 Tone also changes. In addition, Rhythm Set Change is set to OFF.

NOTE

Depending on the Rhythm Set that is selected, the Rhythm Set may not play back properly.

Changing the Pattern Without Changing the Drum Set (Rhythm Set Change)

Each Rhythm in a rhythm pattern has the most suitable drum set assigned to it. When rhythm patterns are changed, the drum sets also switch, so the tone is changed, but here the drum set stays constant and does not change.

Parameter	Value	Description
Rhy Set Change	ON	When the Rhythm is changed, the drum set also changes.
	OFF	When the Rhythm is changed, the drum set does not change.

Changing the Accent Strength (Rhythm Accent)

Modifies the strength of accents and the length of the notes to adjust the "groove" feel of the arpeggio. A setting of 100% will produce the most pronounced groove feel.

Parameter	Value
Rhy Accent	0–100%

Changing the Beat Syncopation (Rhythm/Arpeggio Grid)

This sets the minimum value of the notes comprising rhythms and arpeggios and adjusts the amount of swing (None/Weak/Strong).

NOTE

This setting is shared by the Arpeggiator settings.

Parameter	Value	Description
Rhy/Arp Grid	1/4:	Quarter note (one grid section = one beat)
	1/8:	Eighth note (two grid sections = one beat)
	1/8L:	Eighth note shuffle Light (two grid sections = one beat, with a light shuffle)
	1/8H:	Eighth note shuffle Heavy (two grid sections = one beat, with a heavy shuffle)
	1/12:	Eighth note triplet (three grid sections = one beat)
	1/16:	Sixteenth note (four grid sections = one beat)
	1/16L:	Sixteenth note shuffle Light (four grid sections = one beat, with a light shuffle)
	1/16H:	Sixteenth note shuffle Heavy (four grid sections = one beat, with a heavy shuffle)
	1/24:	Sixteenth note triplet (six grid sections = one beat)

Making the Sound More Staccato or Legato (Rhythm/Arpeggio Duration)

This sets the duration of the sound. You can make it more staccato (short and clipped), or legato, so notes are played longer.

NOTE

This setting is shared by the Arpeggiator settings.

Parameter	Value	Description
Rhy/Arp Duration	30, 40, 50, 60, 70, 80, 90, 100, 120 (%)	For example, when set to "30," the length of the note in a grid (or when a series of grids is connected with ties, the final grid) is 30% of the full length of the note set in the grid type.
	Full	Even if the linked grid is not connected with a tie, the same note continues to sound until the point at which the next new sound is specified.

Selecting the MIDI Output Connector (Rhythm MIDI Out Port)

This sets the MIDI connector (port) from which the rhythm part is to be output.

NOTE

Changing this setting also changes the song's MIDI output settings.

Parameter	Value
MIDI Out Port	ALL, INT (INTERNAL), 1 (MIDI OUT 1), 2 (MIDI OUT 2), USB

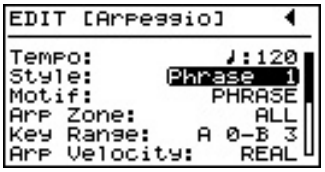
Selecting the MIDI Output Channel (Rhythm MIDI Out Channel)

This sets the channel used for outputting rhythm parts as MIDI output.

Parameter	Value
MIDI Out Channel	OFF, 1–16

Making Arpeggio Settings

The function that allows you to perform arpeggios (chords whose notes are played sequentially rather than together) from a chord's constituent notes, just by playing the chord, is called "Arpeggiator." You can make more detailed arpeggio settings, including tempo and range.



MEMO

For more on switching the Arpeggiator on and off, refer to **"Playing Arpeggios ([ARPEGGIO])"** (p. 46).

Adjusting the Tempo (Arpeggio Tempo)

This sets the speed of the arpeggio.

NOTE

The RD-700SX has one tempo setting. You can change this setting in the tempo display in the Tone screen; or alternatively, you can change the rhythm's tempo setting (p. 49).

Parameter	Value
Tempo	10–250

MEMO

The way Arpeggio is played and the tempo display may differ with some Arpeggio Styles.

MEMO

With Clock Source (p. 81) set to MIDI, "M:" appears in the display, and the RD-700SX is synchronized to the tempo of the external MIDI device. The tempo cannot be changed with the RD-700SX when "M:" is indicated.

Setting the Way Arpeggios are Played (Arpeggio Style)

This sets the style of the arpeggio.

Parameter	Value
Style	**"Arpeggio Style List"** (p. 152)

Changing the Order in Which Notes Are Played (Arpeggio Motif)

Set the order to play the notes for the keys pressed from the following.

Param	Value	Description
Motif	UP (L)	The notes are played one by one in sequence from the lowest of the pressed keys. The note for the lowest pressed key is sounded each time.
	UP (L&H)	The notes are played one by one in sequence from the lowest of the pressed keys. The notes for both the lowest and highest pressed keys are sounded each time.
	UP (_)	The notes are played one by one in sequence from the lowest of the pressed keys. No one note is played every time.
	DOWN (L)	The notes are played one by one in sequence from the highest of the pressed keys. The note for the lowest pressed key is sounded each time.
	DOWN (L&H)	The notes are played one by one in sequence from the highest of the pressed keys. The notes for both the lowest and highest pressed keys are sounded each time.
	DOWN (_)	The notes are played one by one in sequence from the highest of the pressed keys. No one note is played every time.
	UP&DOWN (L)	The notes are played one by one in sequence from the lowest of the pressed keys to the highest, and then back again in the reverse order. The note for the lowest pressed key is sounded each time.
	UP&DOWN (L&H)	The notes are played one by one in sequence from the lowest of the pressed keys to the highest, and then back again in the reverse order. The notes for the lowest and highest pressed keys are sounded each time.
	UP&DOWN (_)	The notes are played one by one in sequence from the lowest of the pressed keys to the highest, and then back again in the reverse order. No one note is played every time.
	RANDOM (L)	The notes are played one by one in random order. The note for the lowest pressed key is sounded each time.
	RANDOM (_)	The notes are played one by one in random order. No one note is played every time.
	PHRASE	A phrase based on the pitch of the lowest pressed key is played. If more than one key is pressed, the pitch of the key that is pressed last is used.

NOTE

Depending on the Arpeggio Style selected, it is not so effective as it expected.

Selecting the Zone for the Arpeggio Performance (Arpeggio Zone)

This sets the zone to be used for the arpeggio performance when multiple tones are used (p. 37).

Parameter	Value
Arp Zone	UPPER, UPPER2, LOWER1, LOWER2. ALL

Setting the Key Range for the Arpeggio Performances (Arpeggio Key Range)

You cannot perform in the normal manner in the range set for arpeggio performances, but you can specify the range used for the arpeggios, which even allows you, for example, to split the keyboard and play arpeggios as accompaniment in the left side, and the melody in the right.

Specify the leftmost and rightmost keys in the range to be used for arpeggios.

Parameter	Value
Key Range	A0–C8

Keeping the Force of the Notes Constant (Arpeggio Velocity)

This sets how strongly sounds are played when you press the keys.

Parameter	Value	Description
Arp Velocity	REAL	Reproduces the actual strength of the keyboard touch.
	1–127	Sets the velocity at a fixed valued, regardless of the keyboard touch.

MEMO

Even if Arpeggio Velocity is set to a value other than "REAL," the sound's velocity changes in accordance with the Arpeggio Style and Arpeggio Accent values.

Rhythm/Arpeggio Grid

Refer to p. 94.

Rhythm/Arpeggio Duration

Refer to p. 94.

Changing the Accent Strength (Arpeggio Accent)

Modifies the strength of accents and the length of the notes to adjust the "groove" feel of the arpeggio. A setting of 100% will produce the most pronounced groove feel.

Parameter	Value
Arp Accent	0–100%

Changing the Octave Range in Arpeggio Style (Arpeggio Octave Range)

Sets the key range in octaves over which arpeggio will take place.

If you want the arpeggio to sound using only the notes that you actually play, set this parameter to 0.

To have the arpeggio sound using the notes you play and notes 1 octave higher, set this parameter to +1. A setting of -1 will make the arpeggio sound using the notes you play and notes 1 octave lower.

Parameter	Value
Arp Octave Range	-3–+3

Continuing Arpeggios Even After the Keys Are Released (Arpeggio Hold)

When the hold setting is switched on, you can have arpeggios continue to play even after you release the keys.

Parameter	Value	Description
Arp Hold	ON	Arpeggios continue to play even after the keys are released.
	OFF	Arpeggios stop playing when the keys are released.

MEMO

The [ARPEGGIO] indicator flashes when the Arpeggio Hold is set to ON.

Switching Hold On and Off with the Buttons

Even when not in the Edit screen, you can use the buttons to turn the Hold function on and off.

- **Hold down [ARPEGGIO] and press [CONTROL/ ZONE LEVEL].**

Hold is turned on or off each time the button is pressed.

About V-LINK

V-LINK (V-LINK) is a function that provides for the play of music and visual material. By using V-LINK-compatible video equipment, visual effects can be easily linked to, and made part of the expressive elements of a performance.

(Examples)

By using the RD-700SX and Edirol DV-7PR together, you can:

- Make Edirol DV-7PR playback settings remotely from the RD-700SX.
- Use the RD-700SX's keyboard to switch the Edirol DV-7PR's images (clips/palettes).

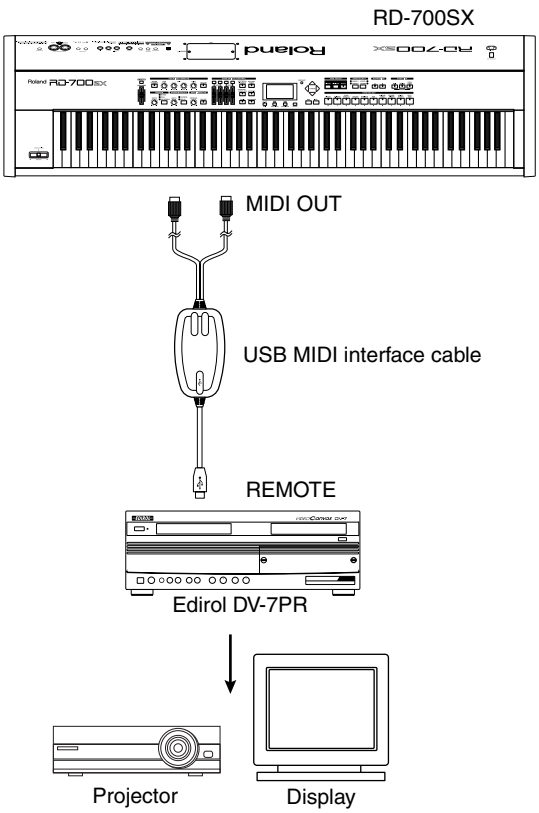
* *In order to use V-LINK with the RD-700SX and Edirol DV-7PR, you will need to make connections using an USB-MIDI Interface (sold separately).*

Connection Examples

Use a USB MIDI Interface cable to connect the RD-700SX's MIDI OUT connector to the DV-7PR's remote jack.

NOTE

Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.



Turning the V-Link ON/OFF

1. Press [V-LINK] so the indicator is lighted.

[V-LINK] will light, and the V-Link setting will be on.
In this state, you can operate the keyboard to manipulate images in sync with the playback of the RD-700SX.

2. Press [V-LINK] again.

[V-LINK] will go out, and the V-Link setting will be off.

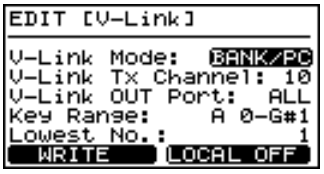
V-Link Settings

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▲]/[▼] to select "8.V-Link."

3. Press [ENTER] to display the Edit screen.



4. Press CURSOR [▲]/[▼] to move the cursor to the parameter to be set.

5. Press [INC]/[DEC] to set the value.

6. When you have finished making the settings, press [EXIT].

You are returned to the previous screen.

MEMO

If you want to save this settings, press [F1(WRITE)]. Settings saved in the RD-700SX are not deleted even when the power is turned off.

NOTE

The RD-700SX does not support the Edirol DV-7PR's Dual Stream mode.

Detailed Settings of V-Link

V-Link Mode

This selects the type of MIDI message output.

Parameter	Value	Description
V-Link Mode	BANK/PC	PC (Clip) output with the white keys, Bank Select (Pallet) output with the black keys
	NOTE	Note output

V-Link Tx Channel

This selects the MIDI channel used in outputting messages.

Parameter	Value
V-Link Tx Channel	1–16

V-Link OUT Port

This selects the port used for outputting messages.

Parameter	Value
V-Link OUT Port	ALL, OUT1, OUT2, USB

Key Range

Selecting the Range of Keys to Use as the V-Link Controller.

Parameter	Value
Key Range	A0–C8

Lowest No

This sets the number that is output when the lowest key in the range set with Key Range is pressed.

Parameter	Value	Description
Lowest No	1–128	When V-Link Mode is set to BANK/PC
	0–127	When V-Link Mode is set to NOTE

Local ON/OFF

This setting determines whether or not the RD-700SX's sounds are played when a key within the range set with Key Range is pressed.

1. The function is alternately turned on or off each time press [F2] in the EDIT V-Link screen.

Parameter	Value	Description
Local ON/OFF	LOCAL OFF	No sounds are played, even when keys in the range set in Key Range are pressed.
	LOCAL ON	Sounds are played when keys in the range set in Key Range are pressed.

Other Functions (Utility)

Utility includes functions for sending data to external MIDI sequencers and other devices and for restoring the settings to their original factory state.

MEMO

For more on "Rec Setting" in Utility menu, refer to **"Settings for Recording (Rec Setting)"** (p. 101).

Transferring the RD-700SX's Settings to an External MIDI Device (Bulk Dump)

You can transfer the contents of Setups and the RD-700SX's system settings to an external MIDI device. This operation is called "bulk dump."

Use this procedure to save the data to an external MIDI device in situations such as when you want to perform by connecting another RD-700SX with the same settings, or to prevent your Setups and system settings from corruption.

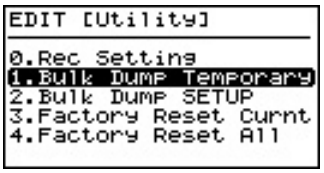
1. Use a MIDI cable (optional) to connect the RD-700SX's MIDI OUT connector to the MIDI IN connector on an external sequencer.

2. Press [EDIT], getting its indicator to light.

The Edit Menu screen appears.

3. Press CURSOR [▼] to select "9.Utility."

4. Press [ENTER] to display the Edit screen.



5. Press CURSOR [▲]/[▼] to select "1. Bulk Dump Temporary" or "2. Bulk Dump SETUP."

Parameter	Value
Bulk Dump Temporary	The contents of the currently selected Setup are transmitted.
Bulk Dump SETUP	The contents of Setups in the specified range are transmitted.

Bulk Dump Temporary

6. Press CURSOR [▶].

A screen like the one shown below appears.

```
Bulk Dump Temporary
Temporary SETUP is
   [RD SETUP     ]
      Send OK?
```

7. Put the external sequencer in record mode.

8. Press [ENTER] to transmit the settings.

To cancel the Bulk Dump, press [DEC].

The message "Now, Executing..." appears in the display during transmission of the data.

9. After the transmitting is finished, the display will indicate "COMPLETE!."

You are returned to the Edit screen.

10. Stop the external sequencer.

Bulk Dump SETUP

6. Press CURSOR [▶].

A screen like the one shown below appears.

```
Bulk Dump SETUP
From:              1
To:              100
Send System:       YES
      Send OK?
```

Parameter	Value
From	Setup number for the first Setup to be transmitted.
To	Setup number for the last Setup to be transmitted.
Send System	Determines whether the system settings are to be transmitted (YES), or not (NO).

7. Press CURSOR [▲] / [▼] and [INC]/[DEC] to set the transmitted Setups.

8. Put the external sequencer in record mode.

9. Press [ENTER] to transmit the settings.

To cancel the Bulk Dump, press [DEC].

A screen like the one shown below appears.

```
Bulk Dump SETUP
   Now Executing..
      1 / 100
   To cancel,
   press[EXIT]
```

10. After the transmitting is finished, the display will indicate "COMPLETE!."

You are returned to the Edit screen.

11. Stop the external sequencer.

Restoring saved settings to the RD-700SX

When returning settings saved to an external sequencer back to the RD-700SX, an Exclusive message is transmitted from the external sequencer, then the data is received by the RD-700SX.

NOTE

Be aware that when you restore Setups data to the RD-700SX, the data in the RD-700SX will be overwritten and lost.

1. Use a MIDI cable to connect the MIDI OUT connector of the external sequencer to the MIDI IN connector of the RD-700SX.

2. Set the device ID number to the same setting as when you performed the bulk dump.

MEMO

Setting the Device ID Number `**"Setting the Device ID Number (Device ID)"** (p. 81).

3. Make sure that [EDIT] indicator is extinguished.

If the [EDIT] indicator is lit, press [EDIT] to turn the indicator light off and put the RD-700SX in normal performance mode.

4. Transmit (play back) the data from the external sequencer.

NOTE

After playback of the Bulk Dump SETUP data, the RD-700SX writes the data to the internal memory. Be sure never to turn off the power while this data is being written (while "Now, writing Bulk Dump Data. Keep on POWER!" is showing).

MEMO

For details on transmitting exclusive data, refer to the owner's manual for your sequencer.

NOTE

Play back the external sequencer at the same tempo you used when performing the bulk dump. If you use a faster tempo, the data may not be restored correctly.

NOTE

Data cannot be received if the Device ID of the receiving device differs from the Device ID used when Bulk Dump was carried out.

Restoring the settings to the factory condition (Factory Reset)

The settings stored in the RD-700SX can be returned to their factory settings.

NOTE

Executing "Factory Reset All" results in deletion of the Setups (p. 56). If you want to keep the recorded content, save the Setup file to your computer (p. 105) or use "Bulk Dump (Bulk Dump SETUP)" to save it to an external sequencer (p. 99).

NOTE

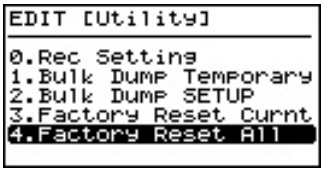
When making USB connections, be absolutely sure to disconnect the USB cable before starting.

1. Press [EDIT], getting the indicator to light.

The Edit Menu screen appears.

2. Press CURSOR [▼] to select "9.Utility."

3. Press [ENTER] to display the Edit screen.



4. Press CURSOR [▲]/[▼] to select "3. Factory Reset Curnt" or "4. Factory Reset All."

Parameter	Value
Factory Reset Curnt	The currently selected Setup returned to their factory settings.
Factory Reset All	The settings stored in the RD-700SX can be returned to their factory settings.

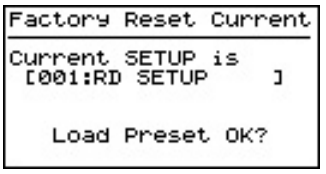
NOTE

While the Factory Reset is in progress, no sounds are produced even when the keys are pressed. In addition, Rhythms and arpeggios being played are also stopped.

Factory Reset Current

5. Press [ENTER].

A screen like the one shown below appears.



NOTE

Selecting "000" as the Setup initializes the ONETOUCH [PIANO] and [E. PIANO] settings.

6. Press [ENTER].

The confirmation message appears.

To cancel the Factory Reset, press [EXIT].

7. Press [ENTER] once again to start the Factory Reset operation.

NOTE

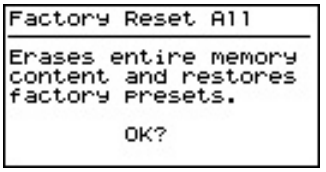
Never turn off the power during Factory Reset (while "Executing... Don't Power Off" appears in the display).

8. After the Factory Reset operation is finished, the Utility screen returns to the display.

Factory Reset All

5. Press [ENTER].

A screen like the one shown below appears.



6. Press [ENTER].

The confirmation message appears.

To cancel the Factory Reset, press [EXIT].

7. Press [ENTER] once again to start the Factory Reset operation.

NOTE

Never turn off the power during Factory Reset (while "Executing... Don't Power Off" appears in the display).

8. After the Factory Reset operation is finished, The Utility screen returns to the display.

Connecting External MIDI Devices

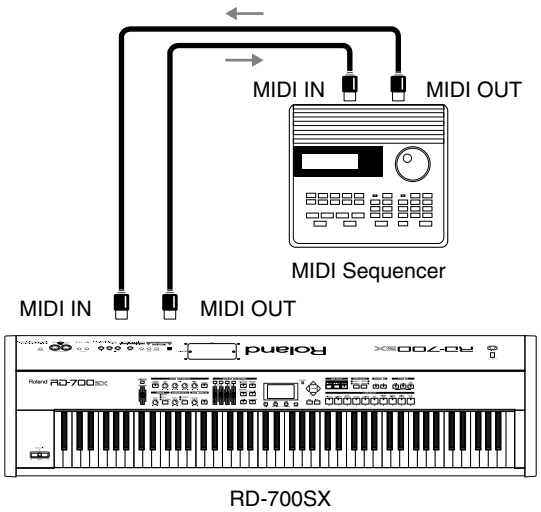
Recording RD-700SX Performances to an External MIDI Sequencer

Now, try using an external sequencer to record your music onto multiple tracks, and then play back the recorded performance.

Connecting to an External Sequencer

NOTE

To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.



1. **Before starting the connection procedure, make sure that the power to all devices has been turned off.**
2. **After reading "Connecting the RD-700SX to External Equipment" (p. 21), connect an audio device/system or headphones.**
3. **Connect the external MIDI sound device with the MIDI cable as shown in the figure above.**
4. **As described in "Turning On the Power" (p. 23), turn on the power of each device.**

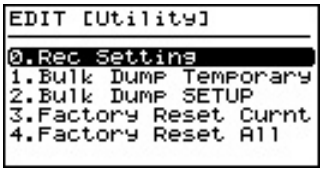
Settings for Recording (Rec Setting)

"Rec Mode" is a convenient feature to use when recording to an external sequencer.

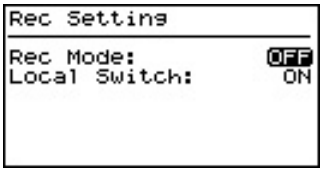
When using the REC Mode function, you can get the most suitable settings for recording the RD-700SX's data to an external sequencer, without having to make all the Part and channel settings.

1. **Press [EDIT], getting the indicator to light.**
   The Edit Menu screen appears.

2. **Press CURSOR [▼] to select "9.Utility."**
3. **Press [ENTER] to display the Edit screen.**



4. **Press CURSOR [▼] to select "0. Rec Setting."**
5. **Press [ENTER], and the following screen will appear:**



Parameter	Value	Description
Rec Mode	ON, OFF	Ordinarily this will be set to OFF. When this is set to ON, settings appropriate for recording are used with respect to the output from MIDI OUT, regardless of the INTERNAL zone settings.
Local Switch		This switches the Local Switch on and off. Although normally set to ON, it should be set to OFF when recording. For details, refer to the following section **"About the Local Switch"** (p. 102).

6. **Press CURSOR [▲]/[▼] and press [INC]/[DEC] to set the values.**
7. **When you have finished making the settings, press [EDIT], extinguishing its indicator.**
   You are returned to the Tone screen.
   The settings for recording to the external sequencer are now selected.

NOTE

With Rec Mode set to ON, you cannot change the EXTERNAL Zone settings (p. 61). Pressing [EXTERNAL/INTERNAL] does not call up the External screen when Rec Mode is set to ON.

Recording the Performance

Use the following procedure when recording to an external sequencer.

1. **Turn on the external sequencer's Thru function.**
   For details, refer to the following section "About Local Switch."
   Refer to your sequencer owner's manual for instructions on how to carry out this procedure.

2. **Select the Setup for the performance to be recorded.**
   For instructions on selecting the Setup, refer to p. 56.

3. **Set the Rec Setting.**
   Use the procedure described in the previous section "Settings for Recording" to make the following settings.
   Rec Mode: ON
   Local Switch: OFF

4. **Begin recording with the external sequencer.**

5. **Bulk Dump the Setup.**
   Using the Utility Bulk Dump Temporary in Edit mode, transmit the contents of the selected Setup to the external sequencer.
   For instructions on carrying out this operation, refer to **"Transferring the RD-700SX's Settings to an External MIDI Device (Bulk Dump)"** (p. 98).

6. **Perform on the RD-700SX.**

7. **When the performance is finished, stop recording with the external sequencer.**
   Recording is now complete.
   You can then listen to the recorded performance by playing it back on the external sequencer.

Exiting Rec Mode

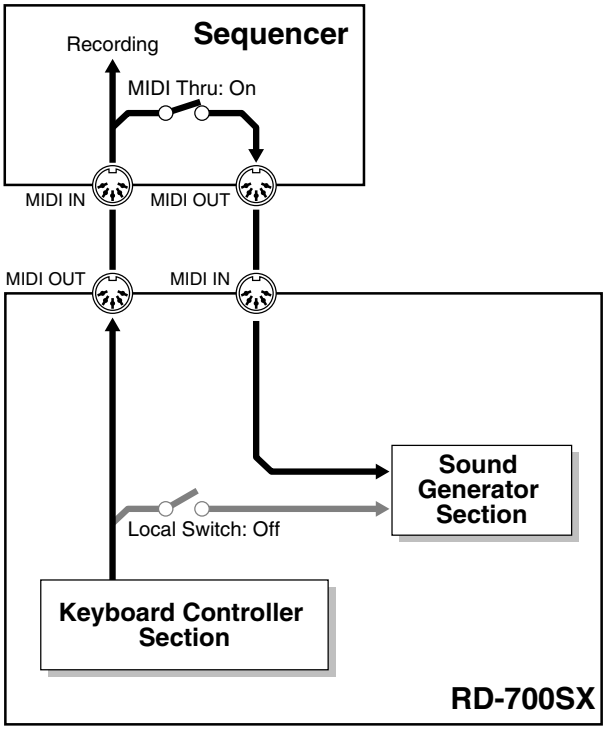
When Rec Mode is set to ON, you cannot change the EXTERNAL settings. When you have finished recording the performance, use the procedure described in the previous section "Settings for Recording" to set Rec Mode to OFF.

NOTE

The settings made in Rec Setting cannot be saved. Rec Setting automatically switch to **"Rec Mode: OFF, Local Switch: ON"** when the power is turned on.

About the Local Switch

The switch that connects and disconnects the MIDI connection between the keyboard controller section and the sound generator section (p. 28) is called the Local switch. Since essential information describing what is being played on the keyboard won't reach the sound generator if the Local switch is set to OFF, the Local switch should normally be left ON.
However, if while performing you want to send that performance data to an external sequencer as MIDI messages to be recorded, you then perform with the externally connected MIDI sequencer set to MIDI Thru (whereby data received from MIDI IN is then output from the MIDI OUT with no changes made to the data).



In this case, the data sent over two paths, i.e., the data sent directly from the keyboard controller section and the data sent from the keyboard controller section via the external sequencer, ends up being sent to the sound generator section simultaneously. Thus, for example, even when you play a "C" key only once, the note "C" cannot be sounded correctly, as the sound is played by the sound generator section twice.

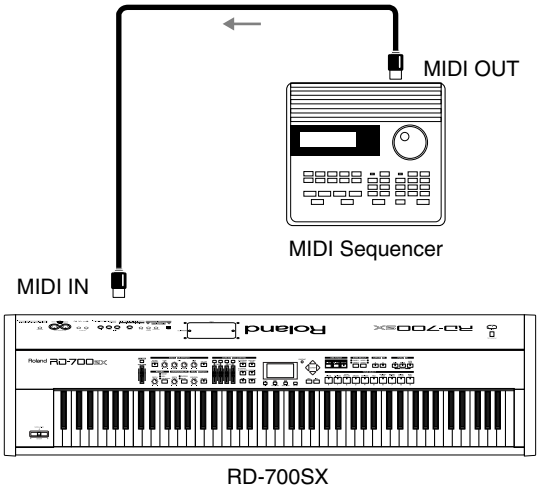
Playing the RD-700SX's Internal Sound Generator from an External MIDI Device

Try Playing the RD-700SX from an external MIDI Device.

Making Connections

NOTE

To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.



1. **Before starting the connection procedure, make sure that the power to all devices has been turned off.**
2. **After reading "Connecting the RD-700SX to External Equipment" (p. 21), connect an audio device/system or headphones.**
3. **Connect the external MIDI device with the MIDI cable as shown in the figure above.**
4. **As described in "Turning On the Power" (p. 23), turn on the power of each device.**

Setting the Channels

Set the RD-700SX's receive channel to match the external MIDI device's transmit channel.

For instructions on setting the RD-700SX's Receive channel, refer to **"Setting the Receive Channel (Receive Channel)"** (p. 92).

When both channels are matched, playing the external MIDI device produces sounds from the RD-700SX's sound generator.

MEMO

For instructions on how to set the transmit channel of the external MIDI device, refer to the owner's manual for your external MIDI device.

Selecting RD-700SX Sounds from an External MIDI Device

Transmitting Bank Select (Controller Number 0, 32) and Program Change messages from the external MIDI device to the RD-700SX allows you to switch Setups and Tones.

Switching Setups

The MIDI messages transmitted by the external MIDI device will be received by the RD-700SX to select Setups as shown in the following table.

Number	Bank Select		Program Change Number
	MSB	LSB	
1–100	085	0	1–100

When switching setups, you must match the MIDI channel of the transmitting device with the RD-700SX's Control channel (p. 81). When switching the tones in each part, match the MIDI channel of the transmitting device with the RD-700SX's Receive channel. However, when the Control channel and the Receive channel are both set to the same channel, the Control channel takes priority, and Setups are switched.

Switching Tones

The MIDI messages transmitted by the external MIDI device will be received by the RD-700SX to select Tones as shown in the following table.

Group	Number	Bank Select		Program Change Number
		MSB	LSB	
PIANO	001–020	087	064	001–020
E.PIANO	021–041	087	065	001–021
CLAV/ MALLET	042–062	087	066	001 - 021
ORGAN	063–072	112	0	001–010
	073–092	087	067	001–020
STRINGS	093–114	087	068	001–022
PAD	115–134	087	069	001–020
GTR/BASS	135–172	087	070	001–038
BRASS/ WINDS	173–196	087	071	001–024
VOICE/ SYNTH	197–218	087	072	001–022
Rhythm Set	219–223	086	064	001–005

MEMO

For details on the SRX Series Tones, refer to the owner's manual for the SRX Series Wave Expansion Board and p. 36.

Connecting to Your Computer via USB (USB Mode)

About USB Functions

The USB function used with the RD-700SX features two modes, a **Storage mode** used for transferring files, and a **MIDI mode** used for MIDI transmissions. Use of these modes requires that the settings be switched with the RD-700SX, and the two modes cannot be used simultaneously.

NOTE

Any switching of the USB mode (Storage mode/MIDI mode) must be performed before the RD-700SX and computer are connected.

The following shows the compatibility between operating systems and modes.

Operating System	Storage Mode	MIDI Mode
Windows XP/2000/Me or later	o	o
Windows 98/98SE	x	o
Mac OS 9 (9.04 or later)	o	o
Mac OS X	o	o

* *The functions may not work correctly with some computers.*

Switching Between Storage Mode and MIDI Mode

NOTE

Any switching of the USB mode (Storage mode/MIDI mode) must be performed before the RD-700SX and computer are connected.

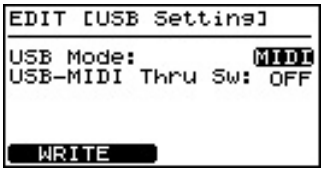
NOTE

When switched to USB MIDI mode, the RD-700SX cannot receive signals through the MIDI IN connector.

1. **Press [EDIT].**

2. **Press CURSOR [▲]/[▼] to select "5. File Utility/USB," and then press [ENTER].**

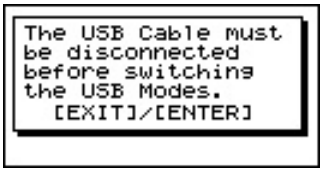
3. **Press CURSOR [▲]/[▼] to select "3. USB Setting," and then press [ENTER].**
   The USB Setting screen appears.



4. **Press CURSOR [▲]/[▼] to select "USB Mode."**

Switching to USB Storage Mode

5. **Use [INC]/[DEC] to select "STORAGE."**
   A confirmation dialog box appears.



6. **To switch the mode, press [ENTER]; to cancel, press [EXIT].**
   USB Storage mode will be selected.

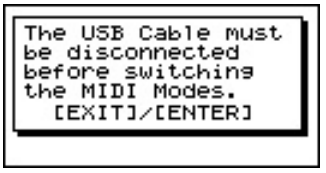
7. **If you want to save the setting, press [F1 (WRITE)].**

   MEMO

   For details on operations in USB Storage mode, refer to p. 89.

Switching to MIDI Mode

5. **Use [INC]/[DEC] to select "MIDI."**
   A confirmation dialog box appears.



6. **To switch the USB mode, press [ENTER]. If you decide not to switch, press [EXIT].**
   MIDI mode will be selected.

7. **Press CURSOR [▲]/[▼] to select "USB-MIDI Thru Sw."**

8. **Use [INC]/[DEC] to select USB-MIDI Thru switch.**
   This setting determines whether the MIDI signals arriving at the MIDI IN connector are transmitted without change from the USB port (ON), or are not transmitted (OFF).

9. **If you want to save settings, press [F1 (Write)].**

   MEMO

   For details on operations in MIDI mode, refer to **"Exchanging MIDI Messages with Your Computer (MIDI Mode)"** (p. 106).

Exchanging Files with Computers (Storage Mode)

You can connect the RD-700SX to your computer with a USB cable and save (back up) the files contained in the RD-700SX's User memory to the computer's hard disk or other media.
You can also use SMF data created on computers with the RD-700SX.
In this manner, you can use USB Storage mode to transfer Setups, SMF data, and other files back and forth between the RD-700SX and the computer.

NOTE
Connect and disconnect the USB cable only while the RD-700SX is turned off. Also be absolutely sure never to disconnect the USB cable or turn off the power to the equipment while the RD-700SX is in USB mode or when data is being transferred.

NOTE
Use a USB Cable no longer than 3 meters.

Connections

1. **Turn off the power to the RD-700SX.**
2. **Start up the computer.**
3. **Connect the RD-700SX and the computer with the USB cable.**
4. **Turn on the power to the RD-700SX.**
5. **Press [EDIT].**
6. **Press CURSOR [▲]/[▼] to select "5.File Utility/USB," then press [ENTER].**
7. **Press CURSOR [▲]/[▼] to select "USB Storage," then press [ENTER].**
   A following screen appears.

NOTE
When Storage mode is not selected in the USB settings, the warning "USB is in MIDI Mode!!" is displayed when [ENTER] is pressed in Step 7.

If you want to switch to USB Storage mode, press [F2 (Set to Storage)] (the instrument switches to USB mode, and the USB Storage screen opens).
To cancel the procedure, press [F1 (EXIT)].

8. **Press [F2 (CONNECT)].**
   "Connecting..." appears in the display, and the process of connecting begins.

When the connection is acknowledged, "Connected!" appears, permitting confirmation of the files on the computer.
A USB storage screen appears.

NOTE
Some time may be required after the message "Connected!" is displayed before files can be recognized with the computer.

Cautions Regarding Folders and Files

Please observe the following points when you have the RD-700SX connected to a computer via USB.

- Do not use the computer to create RD-700SX folders.
- Do not use the computer for operations on the RD-700SX, including formatting the RD-700SX's User memory, optimizing, scanning the disk, etc.
- The RD-700SX can only handle file names that consist of single-byte alphanumeric characters.
- Only the following types of files can be exchanged between the RD-700SX and computers.
  Standard MIDI Files ("MID" is used as the extension)
  SETUP Files ("RDS" is used as the extension)

Exchanging Files

Windows Me/2000/XP Users

1. **In My Computer, double-click the "removable hard disk" icon.**
   The files saved in the RD-700SX's memory are displayed.

Macintosh Users

1. **Double-click the RD-700SX drive icon.**
   The files saved in the RD-700SX's memory are displayed.

Exiting Storage Mode

Windows Me/2000/XP Users

1. **In My Computer, right-click the "removable hard disk" icon and execute "Remove."**

Macintosh Users

1. **Drag the RD-700SX drive icon into the trash.**

Canceling USB Communication

If you want to power off the RD-700SX when it is connected to your computer in Storage mode, you must first cancel USB communication on your computer as described here.

Windows Me/2000/XP Users

1. **Use the device eject button shown in the taskbar at the lower right of your computer screen to cancel the connection with the RD-700SX.**

Macintosh Users

1. **Make sure that the RD-700SX drive icon is not on your desktop.**

Exchanging MIDI Messages with Your Computer (MIDI Mode)

Driver Installation and Settings

In order to use the RD-700SX as a USB MIDI device from your computer, you must first install the USB MIDI driver. The USB MIDI driver is on the included "RD-700SX Driver CD-ROM."

In order to use USB in MIDI mode, you must install the driver from the included CD-ROM into your computer.

The correct driver and the installation procedure will depend on your system and on the other programs you are using. Be sure to read the Readme file on the CD-ROM before installation.

Windows XP/2000

→ \W2kXP\Readme_E.htm

Windows Me/98/98SE

→ \W98Me\Readme_E.htm

Mac OS 9 (9.04 or later)

→ \Driver E (Mac OS 9)\Readme_e.htm

Mac OS X

→ \Driver (Mac OS X)\Readme_e.htm

NOTE

When you install the USB MIDI Driver, set the RD-700SX to "MIDI Mode"(p. 104).

NOTE

Use a USB Cable no longer than 3 meters.

NOTE

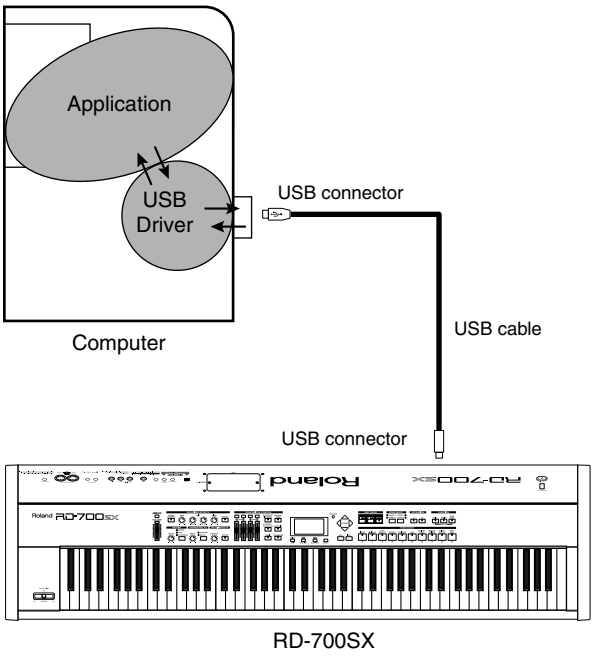
Caution when disconnecting the USB cable

You must shut down your computer before disconnecting the USB cable. Disconnecting the cable while your computer's power is on may destabilize its operation.

What is the USB MIDI Driver?

The USB MIDI Driver is a software which passes data between the RD-700SX and the application (sequencer software, etc.) that is running on the USB-connected computer.

The USB MIDI Driver sends data from the application to the RD-700SX, and passes data from the RD-700SX to the application.



Switching USB Drivers

The USB driver to be used when a computer is connected to the USB connector is determined as follows:

1. **Press [EDIT].**
2. **Press CURSOR [▲]/[▼] to select "1. SYSTEM," and then press [ENTER].**
3. **Press CURSOR [◀]/[▶] to switch screens, and press CURSOR [▲]/[▼] to move the cursor to "USB Driver."**
4. **Press [INC]/[DEC] to set the value.**
5. **After making the setting, turn off the power to the RD-700SX, then turn it on again.**

Parameter	Value	Description
USB Driver	Original	Select this when using the supplied driver with a USB connection.
	Generic	Select this when using a generic USB driver included with the OS with a USB connection.

MEMO

Troubleshooting

If the RD-700SX does not function in the way you expect, first check the following points. If this does not resolve the problem, consult your dealer or a nearby Roland Service Station.

* *If certain messages appear in the display during operation, please refer to* ***Error Messages/Other Messages*** *(p. 111).*

Problem	Check/Solution
Power Not Coming On	Is the RD-700SX's power cord properly plugged into a power source as well as connected to the RD-700SX?
No Sound	Is the power for connected amps and speakers turned on? Is the volume turned all the way down?
	Is the VOLUME slider turned all the way down?
	Are all connections properly made? • When using the RD-700SX as a stand-alone instrument, be sure to connect with audio cables or use headphones (p. 21).
	Are sounds audible with headphones connected? • If sounds are audible through headphones, it may indicate that there is a short in an audio cable or some sort of amp or mixer problem. Check the cables and equipment once again.
	Is ZONE SWITCH set to OFF? (p. 41, p. 64)
	Is a Part's volume turned off with the ZONE LEVEL slider? (p. 41, p. 64)
	If the sound for a pressed key does is not being played, is the Local Switch set to OFF? • In the Utility Rec Setting in Edit mode, set the Local Switch to ON (p. 101).
	Are the effect settings correct? Check following settings. • ON/OFF settings for MULTI EFFECTS [ON/OFF] (p. 52) • Other Multi-Effect settings in Edit mode (p. 87, p. 112)
	Are the Wave Expansion Boards correctly installed? • When selecting settings while using the EXPANSION [A] or [B] Tones or Rhythm Sets, confirm that the specified Wave Expansion Boards are properly installed in the specified slots (p. 15).
	Has the volume been lowered by pedal operations or by MIDI messages (volume messages or expression messages) received from an external MIDI device?

Problem	Check/Solution
No Sound for Specific Part	Is the Part's volume level turned down? Check following settings. • ZONE LEVEL sliders (p. 41, p. 64) • Part Parameter Volume settings in Edit mode (p. 92)
	Are the Part's MIDI Receive channel and the MIDI Transmit channel for the connected MIDI device matched? Check the MIDI Receive channel settings with Part Parameter Receive Channel in Edit mode (p. 92).
No Sound From the Connected MIDI Device	Is the device enabled to transmit MIDI messages? • Set [EXTERNAL/INTERNAL] and ZONE SWITCH to ON (p. 64). MIDI messages cannot be transmitted if ZONE SWITCH is set to OFF.
	Is the RD-700SX's keyboard controller section MIDI Transmit channel matched to the connected MIDI device's MIDI Receive channel? • Make the Ch(MIDI Transmit Channel) settings in the External screen (p. 62).
No Sound in a Specific Range	Has the range in which sounds are to be played (the key range) been set? Check following settings. • Settings for the LWR and UPR Parts in the External screen (p. 66) • Key Range settings in Zone Info (p. 69)
	With certain Tones, for example Rhythm Sets, bass Tones, Timpani, and other Tones will not sound if a portion of the Tone falls outside the recommended range.
	Is V-Link switched on (p. 97)? • Set the Local ON/OFF to ON in the V-Link Setting in Edit mode. Sounds are played with keyboard even when V-Link is switched on.
Tones Are Altered	Did you call up a Setup? • When a Setup is called up, the current Tone, effect, and other settings are disabled, and the selected Setup goes into effect (p. 56). Resave required settings to a Setup (p. 58).
	Did you press ONE TOUCH [PIANO] or [E.PIANO]? • When ONE TOUCH [PIANO] or [E.PIANO] is pressed, the current Tone, effect, and other settings are disabled, and settings for use in piano performances go into effect (p. 32). Resave required settings to a Setup (p. 58).

Problem	Check/Solution
Tones Are Altered	Is the Tone Control function assigned to the MULTI EFFECTS [CONTROL] knob? • Check the Control Knob Assign settings in Edit mode (p. 85).
When UPPER Tone is Selected, LOWER Changes to Same Tone	Are the UPPER Part and the LOWER Part set to the same value in the Part Assign settings in Zone Info (p. 69)?
Tone Doesn't Change/ Keyboard Not Switching to Split	Is [EXTERNAL/INTERNAL] set to ON? • When [EXTERNAL/INTERNAL] is set to ON, the external sound generator is controlled. To change the RD-700SX's Tones and make settings in Keyboard mode, set [EXTERNAL/INTERNAL] to OFF (p. 64).
	Is the ZONE SELECT button for the Zone containing the Tone you want to change set to ON (p. 41)?
	Is [NUM LOCK] set to on? • Tone categories cannot be selected with the TONE SELECT buttons when [NUM LOCK] is set to on.
Rhythm Not Sounding	Has the System Clock Source setting in Edit mode been set to MIDI (p. 81)? Do you have an external MIDI device connected? • You cannot set the tempo with the RD-700SX when Clock Source is set to MIDI. Accordingly, if no external MIDI device is connected, then no tempo setting is made for the Rhythm, and so the Rhythm does not sound.
	Set the Part 10 Receive Channel setting in Part Parameter in Edit mode to 10 (p. 92).
	Is "SONG/ARP" screen selected for the Rhythm/Song/Arpeggio screen? Pressing [RHYTHM/SONG] to switch "RHYTHM/ARP" screen (p. 48).
Multi-effects are not applied to the Lower part	Check the MFX Source and MFX Dest settings (p. 86). • With certain settings, the Lower Part's MFX settings are disregarded.

Problem	Check/Solution
Effects Not Applied/Effects Sound Wrong	Is a TW-Organ 1–10 Tone selected? Effects are applied differently to the Tone Wheel than they are with other effects. • Effects set in Effects MFX Source (p. 86) are applied regardless of each Part MFX Switch ON/OFF setting in the Part Parameter settings (p. 92), or the MFX setting for each Tone in the Tone Info (p. 68). • When Tone Wheel is selected for multiple Parts, it is applied to all the Parts, regardless of whether the Rx. Pitch Bend and Rx. Hold-1 in the Part Parameter settings are ON or OFF (p. 92).
	Is MULTI EFFECTS [ON/OFF] set to OFF (p. 52)?
	Is the MULTI EFFECTS [CONTROL] knob set to TEMPO? • In Edit mode, set the Control Knob Assign setting in Effects as a value other than TEMPO (p. 85).
	Even when MFX Dest (p. 87) is set to "ALL," no effects are applied to parts in which the Edit mode Part Parameter MFX Switch (p. 92) is set to OFF.
	In some cases where the delay timing selected in the DELAY settings in Effects is set to a note value, the delay sound may not be heard. Either adjust the tempo or change the numerical value of the delay timing (p. 122, p. 144).
No Pitch Bend When Pitch Bend Lever is Moved	Is the Tone Wheel screen appearing in the display? • The pitch bend effect cannot be applied with the pitch bend lever while the Tone Wheel screen is in the display. In this case, the pitch bend lever functions as a slow/fast switch for the Rotary effect (p. 53).
Sounds Come From Left or Right Each Time Key is Pressed (Panned)	In some Tones, the settings are such that sounds randomly play from the left or right side (are panned) each time the keys are pressed. These settings cannot be changed.
Sound is Distorted	Sounds can be distorted due to equalizer, multi-effect, and Part volume settings. Adjust the following settings. • ZONE LEVEL sliders (p. 41) • System Master Volume settings (p. 80) • Equalizer Input Gain settings (p. 45)
	Is a distortion-type effect being applied to the sound (p. 71, p. 87)?

Troubleshooting

Problem	Check/Solution
Cannot Select the Tone Wheel Screen	The screen is displayed by selecting a Organ Tone (TW-Organ 1–10) for any of the UPPER1, UPPER2, or LOWER Parts in the Tone screen, and then pressing CURSOR [◀] (p. 53).
Key Range Settings Not Effective	Is [SPLIT] set to OFF? • Key Range goes into effect when [SPLIT] set to ON (p. 66, p. 69).
Tempo Doesn't Change	Is the System Clock Source setting in Edit mode set to "MIDI"? • When you want to perform using the RD-700SX's tempo, set this to "INT" (p. 81).
Pitch is Odd	Depending on the Tone selected, pitches played in certain registers will be changed and played at other pitches.
	Is Coarse Tune, Fine Tune, or Stretch Tune set for any specific Part? Check the following settings. • Tone Info Course Tune, Fine Tune (p. 71) • Stretch Tune settings in Edit mode (p. 82) • C.T and F.T setting in External screen (p. 67)
	Has the RD-700SX gone out of tune? Check the following settings. • System Master Tune settings in Edit mode (p. 27). • System Temperament settingsin Edit mode (p. 82) • Micro Tune settings in Piano Edit (p. 75)
	Has the pitch been changed by pedal operations or by Pitch Bend messages received from an external MIDI device?
Sound is Cut Off	When you try playing more than the maximum 128 voices simultaneously, sounds currently being played may be cut out. • Increase the Voice Reserve settings for the Parts you do not want to have cut off (p. 92).
Sound Keeps Playing When Key is Pressed	Is the pedal polarity reversed? • Check the System Pedal Polarity settings in Edit mode (p. 81).
Exclusive Messages Cannot Be Received	Is the Device ID number of the transmitting device matched to the RD-700SX's Device ID number? • Check the System Device ID settings in Edit mode (p. 81).

Problem	Check/Solution
Song Data Not Played Back Correctly	Is the Receive GM/GM2 System On Switch set to ON? • Set the System Rx GM System On or System Rx GM2 System On to ON in Edit mode (p. 82).
	Are you playing back GS Format song data? • Once the RD-700SX receives a GS Reset message, it then is enabled for GS Format. This permits playback of music files bearing the GS logo (GS music files). However, data created exclusively for the Sound Canvas Series may not play back properly on the RD-700SX.
Pedal function is not affected	Is the System Pedal Mode setting in Edit mode set to "SYSTEM"? • Set this to "SETUP" (p. 80).

Error Messages/Other Messages

Error Messages

Indication: **MIDI Buffer Full**
Situation: Due to an inordinate volume of MIDI messages received, the RD-700SX has failed to process them properly.
Action: Reduce the amount of MIDI messages to be transmitted.

Indication: **MIDI Communication Error**
Situation: A problem has occurred with the MIDI cable connections.
Action: Check that MIDI cables are not broken or pulled out.

Indication: **BULK DUMP: Receive Data Error**
Situation: A MIDI message was received incorrectly.
Action: If the same error message is displayed repeatedly, there is a problem with the MIDI messages that are being transmitted to the RD-700SX.

Indication: **File Error**
Situation: A file can't be read. Or a file may be broken.
Action: Be sure you're using Standard MIDI Files ("MID" is used as the extension) and Setup Files ("RDS" is used as the extension).

Indication: **System Error**
Situation: There may be a problem with the system.
Action: Turn on the power once again, then repeat the procedure.

Other Messages

Indication: **Now, writing Bulk Dump Data. Keep on POWER!!**
Situation: Indicated when Bulk Dump data is being received.
Action: Once received, the data is written to the RD-700SX's internal memory; be absolutely sure not to turn off the power until "COMPLETED" appears in the display.

Indication: **Unavailable while in Rec Mode**
Situation: This is displayed when the [EXTERNAL/INTERNAL] button is pressed with Rec Mode "ON."
Action: When Rec Mode is "ON," you cannot change the External settings. To make changes to the External settings, set Rec Mode to "OFF" (p. 101).

Indication: **Memory Full!**
Situation: There is not sufficient space left on the user memory.
Action: Delete files stored on the RD-700SX memory.

Indication: **File Exists. Overwrite OK?**
Situation: A file with the same name is already exists.
Action: If you execute the procedure, the file will be overwrite. If you don't want to overwrite, change a filename.

Indication: **Can not Save**
Situation: The save could not be performed correctly.
Action: The internal memory capacity of the RD-700SX may be full. Delete files stored on the RD-700SX memory.

Indication: **Can not Delete**
Situation: The data cannot be deleted.
Action: Select the File Type to "ALL FILES" in the DELETE screen, then repeat the procedure.

Indication: **Panel is Locked**
Situation: Buttons will not function.
Action: Press [EXIT] to cancel.

Effect/Parameter List

Multi-Effects Parameter

00: THRU

01: EQUALIZER

This is a four-band stereo equalizer (low, mid x 2, high).

	Assignable Parameters
MFX Control	Low Gain, High Gain, Level

Parameter	Value	Description
Low Freq	200, 400 Hz	Frequency of the low range
Low Gain	-15– +15 dB	Gain of the low range
Mid1 Freq	200–8000 Hz	Frequency of the middle range 1
Mid1 Gain	-15– +15 dB	Gain of the middle range 1
Mid1 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 1 Set a higher value for Q to narrow the range to be affected.
Mid2 Freq	200–8000 Hz	Frequency of the middle range 2
Mid2 Gain	-15– +15 dB	Gain of the middle range 2
Mid2 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 2 Set a higher value for Q to narrow the range to be affected.
High Freq	2000, 4000, 8000 Hz	Frequency of the high range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

02: SPECTRUM

This is a stereo spectrum. Spectrum is a type of filter which modifies the timbre by boosting or cutting the level at specific frequencies.

	Assignable Parameters
MFX Control	Level

Parameter	Value	Description
Band1 (250Hz)	-15– +15 dB	Gain of each frequency band
Band2 (500Hz)		
Band3 (1000Hz)		
Band4 (1250Hz)		
Band5 (2000Hz)		
Band6 (3150Hz)		
Band7 (4000Hz)		
Band8 (8000Hz)		
Q	0.5, 1.0, 2.0, 4.0, 8.0	Simultaneously adjusts the width of the adjusted ranges for all the frequency bands.
Level	0–127	Output Level

03: ISOLATOR

This is an equalizer which cuts the volume greatly, allowing you to add a special effect to the sound by cutting the volume in varying ranges.

	Assignable Parameters
MFX Control	Boost/Cut Low, Boost/Cut Mid, Boost/Cut High

Parameter	Value	Description
Boost/Cut Low	-60– +4 dB	These boost and cut each of the High, Middle, and Low frequency ranges. At -60 dB, the sound becomes inaudible. 0 dB is equivalent to the input level of the sound.
Boost/Cut Mid		
Boost/Cut High		
APhase Low Sw	OFF, ON	Turns the Anti-Phase function on and off for the Low frequency ranges. When turned on, the counter-channel of stereo sound is inverted and added to the signal.
APhase Low Lev	0–127	Adjusts the level settings for the Low frequency ranges. Adjusting this level for certain frequencies allows you to lend emphasis to specific parts. (This is effective only for stereo source.)
APhase Mid Sw	OFF, ON	Settings of the Anti-Phase function for the Middle frequency ranges The parameters are the same as for the Low frequency ranges.
APhase Mid Lev	0–127	
Low Boost Sw	OFF, ON	Turns Low Booster on/off. This emphasizes the bottom to create a heavy bass sound.
Low Boost Level	0–127	Increasing this value gives you a heavier low end. Depending on the Isolator and filter settings this effect may be hard to distinguish.
Level	0–127	Output Level

04: LOW BOOST

Boosts the volume of the lower range, creating powerful lows.

	Assignable Parameters
MFX Control	Boost Gain, Boost Freq

Parameter	Value	Description
Boost Freq	50–125 Hz	Center frequency at which the lower range will be boosted
Boost Gain	0– +12 dB	Amount by which the lower range will be boosted
Boost Width	WIDE, MID, NARROW	Width of the lower range that will be boosted
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Level	0–127	Output level

05: SUPER FILTR (SUPER FILTER)

This is a filter with an extremely sharp slope. The cutoff frequency can be varied cyclically.

	Assignable Parameters
MFX Control	Filter Cutoff, Filter Resonance, Rate, Depth

Parameter	Value	Description
Filter Type	LPF, BPF, HPF, NOTCH	Filter type Frequency range that will pass through each filter **LPF**: Frequencies below the cutoff **BPF**: Frequencies in the region of the cutoff **HPF**: Frequencies above the cutoff **NOTCH**: Frequencies other than the region of the cutoff
Filter Slope	-12, -24, -36 dB	Amount of attenuation per octave **-36 dB**: Extremely steep **-24 dB**: Steep **-12 dB**: Gentle
Filter Cutoff	0–127	Cutoff frequency of the filter Increasing this value will raise the cutoff frequency.
Filter Resonance	0–127	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.
Filter Gain	0– +12 dB	Amount of boost for the filter output

Parameter	Value	Description
Modulation Sw	OFF, ON	On/off switch for cyclic change
Modulation Wave	TRI, SQR, SIN, SAW1, SAW2	How the cutoff frequency will be modulated **TRI**: Triangle wave **SQR**: Square wave **SIN**: Sine wave **SAW1**: Sawtooth wave (upward) **SAW2**: Sawtooth wave (downward)
	SAW1 SAW2	
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Rate of modulation (Hz)
Rate (♪)	note (*1)	Rate of modulation (note)
Depth	0–127	Depth of modulation
Attack	0–127	Speed at which the cutoff frequency will change This is effective if Modulation Wave is SQR, SAW1, or SAW2.
Level	0–127	Output level

06: STEP FILTER

This is a filter whose cutoff frequency can be modulated in steps. You can specify the pattern by which the cutoff frequency will change.

	Assignable Parameters
MFX Control	Rate, Filter Resonance, Filter Type

Parameter	Value	Description
Step 01–16	0–127	Cutoff frequency at each step
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Rate of modulation (Hz)
Rate (♪)	note (*1)	Rate of modulation (note)
Attack	0–127	Speed at which the cutoff frequency changes between steps
Filter Type	LPF, BPF, HPF, NOTCH	Filter type Frequency range that will pass through each filter **LPF**: Frequencies below the cutoff **BPF**: Frequencies in the region of the cutoff **HPF**: Frequencies above the cutoff **NOTCH**: Frequencies other than the region of the cutoff
Filter Slope	-12, -24, -36 dB	Amount of attenuation per octave **-12 dB**: Gentle **-24 dB**: Steep **-36 dB**: Extremely steep
Filter Resonance	0–127	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.
Filter Gain	0– +12 dB	Amount of boost for the filter output
Level	0–127	Output level

07: ENHANCER

Controls the overtone structure of the high frequencies, adding sparkle and tightness to the sound.

	Assignable Parameters
MFX Control	Sens, Mix

Parameter	Value	Description
Sens	0–127	Sensitivity of the enhancer
Mix	0–127	Level of the overtones generated by the enhancer
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

08: AUTO WAH

Cyclically controls a filter to create cyclic change in timbre.

	Assignable Parameters
MFX Control	Manual, Sens, Rate, Depth, Phase

Parameter	Value	Description
Filter Type	LPF, BPF	Type of filter **LPF**: The wah effect will be applied over a wide frequency range. **BPF**: The wah effect will be applied over a narrow frequency range.
Manual	0–127	Adjusts the center frequency at which the effect is applied.
Peak	0–127	Adjusts the amount of the wah effect that will occur in the range of the center frequency. Set a higher value for Q to narrow the range to be affected.
Sens	0–127	Adjusts the sensitivity with which the filter is controlled.
Polarity	UP, DOWN	Sets the direction in which the frequency will change when the auto-wah filter is modulated. **UP**: The filter will change toward a higher frequency. **DOWN**: The filter will change toward a lower frequency.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Adjusts the degree of phase shift of the left and right sounds when the wah effect is applied.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

09: HUMANIZER

Adds a vowel character to the sound, making it similar to a human voice.

	Assignable Parameters
MFX Control	Rate, Drive, Depth, Vowel1, Vowel2, Manual

Parameter	Value	Description
Drive Sw	OFF, ON	Turns Drive on/off.
Drive	0–127	Degree of distortion Also changes the volume.
Vowel1	a, e, i, o, u	Selects the vowel.
Vowel2	a, e, i, o, u	

Parameter	Value	Description
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency at which the two vowels switch (Hz)
Rate (♪)	note (*1)	Frequency at which the two vowels switch (note)
Depth	0–127	Effect depth
Input Sync Sw	OFF, ON	Determines whether the LFO for switching the vowels is reset by the input signal (ON) or not (OFF).
Input Sync Thres	0–127	Volume level at which reset is applied
Manual	0–100	Point at which Vowel 1/2 switch **49 or less**: Vowel 1 will have a longer duration. **50**: Vowel 1 and 2 will be of equal duration. **51 or more**: Vowel 2 will have a longer duration.
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Pan	L64–63R	Stereo location of the output
Level	0–127	Output level

10: SP.SIMULATR (SPEAKER SIMULATOR)

Simulates the speaker type and mic settings used to record the speaker sound.

	Assignable Parameters
MFX Control	Direct Level, Mic Level, Speaker

Parameter	Value	Description
Speaker	(See the table.)	Type of speaker
Mic Setting	1, 2, 3	Adjusts the location of the mic that is recording the sound of the speaker. This can be adjusted in three steps, with the mic becoming more distant in the order of 1, 2, and 3.
Mic Level	0–127	Volume of the microphone
Direct Level	0–127	Volume of the direct sound
Level	0–127	Output Level

Specifications of each Speaker Type

The speaker column indicates the diameter of each speaker unit (in inches) and the number of units.

Type	Cabinet	Speaker	Microphone
SMALL 1	small open-back enclosure	10	dynamic
SMALL 2	small open-back enclosure	10	dynamic
MIDDLE	open back enclosure	12 x 1	dynamic
JC-120	open back enclosure	12 x 2	dynamic
BUILT-IN 1	open back enclosure	12 x 2	dynamic
BUILT-IN 2	open back enclosure	12 x 2	condenser
BUILT-IN 3	open back enclosure	12 x 2	condenser
BUILT-IN 4	open back enclosure	12 x 2	condenser
BUILT-IN 5	open back enclosure	12 x 2	condenser
BG STACK 1	sealed enclosure	12 x 2	condenser
BG STACK 2	large sealed enclosure	12 x 2	condenser
MS STACK 1	large sealed enclosure	12 x 4	condenser
MS STACK 2	large sealed enclosure	12 x 4	condenser
METAL STACK	large double stack	12 x 4	condenser
2-STACK	large double stack	12 x 4	condenser
3-STACK	large triple stack	12 x 4	condenser

11: PHASER

This is a stereo phaser. A phase-shifted sound is added to the original sound and modulated.

	Assignable Parameters
MFX Control	Rate, Resonance, Manual, Mix

Parameter	Value	Description
Mode	4-STAGE, 8-STAGE, 12-STAGE	Number of stages in the phaser
Manual	0–127	Adjusts the basic frequency from which the sound will be modulated.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Polarity	INVERSE, SYNCHRO	Selects whether the left and right phase of the modulation will be the same or the opposite. **INVERSE**: The left and right phase will be opposite. When using a mono source, this spreads the sound. **SYNCHRO**: The left and right phase will be the same. Select this when inputting a stereo source.
Resonance	0–127	Amount of feedback
Cross Feedback	-98– +98 %	Adjusts the proportion of the phaser sound that is fed back into the effect. Negative (-) settings will invert the phase.
Mix	0–127	Level of the phase-shifted sound
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

12: STEP PHASER

The phaser effect will be varied gradually.

	Assignable Parameters
MFX Control	StepRate, Depth, Resonance, Manual, Mix

Parameter	Value	Description
Mode	4-STAGE, 8-STAGE, 12-STAGE	Number of stages in the phaser
Manual	0–127	Adjusts the basic frequency from which the sound will be modulated.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Polarity	INVERSE, SYNCHRO	Selects whether the left and right phase of the modulation will be the same or the opposite. **INVERSE**: The left and right phase will be opposite. When using a mono source, this spreads the sound. **SYNCHRO**: The left and right phase will be the same. Select this when inputting a stereo source.
Resonance	0–127	Amount of feedback
Cross Feedback	-98– +98 %	Adjusts the proportion of the phaser sound that is fed back into the effect. Negative (-) settings will invert the phase.

Parameter	Value	Description
Step Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
StepRate(Hz)	0.10–20.00 Hz	Rate of the step-wise change in the phaser effect (Hz)
Step Rate (♪)	note (*1)	Rate of the step-wise change in the phaser effect (note)
Mix	0–127	Level of the phase-shifted sound
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

13: MULT PHASER (MULTI STAGE PHASER)

Extremely high settings of the phase difference produce a deep phaser effect.

	Assignable Parameters
MFX Control	Rate, Depth, Resonance, Manual, Mix

Parameter	Value	Description
Mode	4-STAGE, 8-STAGE, 12-STAGE, 16-STAGE, 20-STAGE, 24-STAGE	Number of phaser stages
Manual	0–127	Adjusts the basic frequency from which the sound will be modulated.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Resonance	0–127	Amount of feedback
Mix	0–127	Level of the phase-shifted sound
Pan	L64–63R	Stereo location of the output sound
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

14: INF PHASER (INFINITE PHASER)

A phaser that continues raising/lowering the frequency at which the sound is modulated.

	Assignable Parameters
MFX Control	Speed, Resonance, Mix, Pan

Parameter	Value	Description
Mode	1, 2, 3, 4	Higher values will produce a deeper phaser effect.
Speed	-100– +100	Speed at which to raise or lower the frequency at which the sound is modulated (+: upward / -: downward)
Resonance	0–127	Amount of feedback
Mix	0–127	Volume of the phase-shifted sound
Pan	L64–63R	Panning of the output sound
Low Gain	-15– +15 dB	Amount of boost/cut for the low-frequency range
High Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
Level	0–127	Output volume

15: RING MODLTR (RING MODULATOR)

This is an effect that applies amplitude modulation (AM) to the input signal, producing bell-like sounds. You can also change the modulation frequency in response to changes in the volume of the sound sent into the effect.

	Assignable Parameters
MFX Control	Frequency, Sens, Balance

Parameter	Value	Description
Frequency	0–127	Adjusts the frequency at which modulation is applied.
Sens	0–127	Adjusts the amount of frequency modulation applied.
Polarity	UP, DOWN	Determines whether the frequency modulation moves towards higher frequencies (UP) or lower frequencies (DOWN).
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

16: STEP R.MOD (STEP RING MODULATOR)

This is a ring modulator that uses a 16-step sequence to vary the frequency at which modulation is applied.

	Assignable Parameters
MFX Control	Rate, Attack, Balance

Parameter	Value	Description
Step 01–16	0–127	Frequency of ring modulation at each step
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Rate at which the 16-step sequence will cycle (Hz)
Rate (♪)	note (*1)	Rate at which the 16-step sequence will cycle (note)
Attack	0–127	Speed at which the modulation frequency changes between steps
Low Gain	-15– +15 dB	Amount of boost/cut for the low-frequency range
High Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and effect sound (W)
Level	0–127	Output volume

17: TREMOLO

Cyclically modulates the volume to add tremolo effect to the sound.

	Assignable Parameters
MFX Control	Rate, Depth, Mod Wave

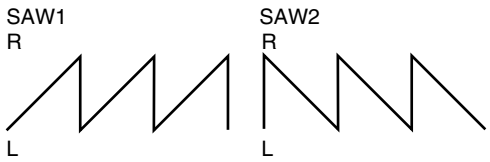
Parameter	Value	Description
Mod Wave	TRI, SQR, SIN, SAW1, SAW2	Modulation Wave **TRI**: Triangle wave **SQR**: Square wave **SIN**: Sine wave **SAW1/2**: Sawtooth wave

Parameter	Value	Description
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of the change (Hz)
Rate (♪)	note (*1)	Frequency of the change (note)
Depth	0–127	Depth to which the effect is applied
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

18: AUTO PAN

Cyclically modulates the stereo location of the sound.

	Assignable Parameters
MFX Control	Rate, Depth, Mod Wave

Parameter	Value	Description
Mod Wave	TRI, SQR, SIN, SAW1, SAW2	Modulation Wave **TRI**: triangle wave **SQR**: square wave **SIN**: sine wave **SAW1/2**: sawtooth wave
		
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of the change (Hz)
Rate (♪)	note (*1)	Frequency of the change (note)
Depth	0–127	Depth to which the effect is applied
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

19: STEP PAN

This uses a 16-step sequence to vary the panning of the sound.

	Assignable Parameters
MFX Control	Rate, Attack

Parameter	Value	Description
Step 01–16	L64–63R	Pan at each step
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Rate at which the 16-step sequence will cycle (Hz)
Rate (♪)	note (*1)	Rate at which the 16-step sequence will cycle (note)
Attack	0–127	Speed at which the pan changes between steps
Input Sync Sw	OFF, ON	Specifies whether an input note will cause the sequence to resume from the first step of the sequence (ON) or not (OFF)
Input Sync Thres	0–127	Volume at which an input note will be detected
Level	0–127	Output volume

20: SLICER

By applying successive cuts to the sound, this effect turns a conventional sound into a sound that appears to be played as a backing phrase. This is especially effective when applied to sustain-type sounds.

	Assignable Parameters
MFX Control	Rate, Attack, Shuffle

Parameter	Value	Description
Step 01–16	0–127	Level at each step
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Rate at which the 16-step sequence will cycle (Hz)
Rate (♪)	note (*1)	Rate at which the 16-step sequence will cycle (note)
Attack	0–127	Speed at which the level changes between steps
Input Sync Sw	OFF, ON	Specifies whether an input note will cause the sequence to resume from the first step of the sequence (ON) or not (OFF)
Input Sync Thres	0–127	Volume at which an input note will be detected
Mode	LEGATO, SLASH	Sets the manner in which the volume changes as one step progresses to the next. **LEGATO**: The change in volume from one step's level to the next remains unaltered. If the level of a following step is the same as the one preceding it, there is no change in volume. **SLASH**: The level is momentarily set to 0 before progressing to the level of the next step. This change in volume occurs even if the level of the following step is the same as the preceding step.
Shuffle	0–127	Timing of volume changes in levels for even-numbered steps (step 2, step 4, step 6...). The higher the value, the later the beat progresses.
Level	0–127	Output level

21: ROTARY

The Rotary effect simulates the sound of the rotary speakers often used with the electric organs of the past. Since the movement of the high range and low range rotors can be set independently, the unique type of modulation characteristic of these speakers can be simulated quite closely. This effect is most suitable for electric organ Patches.

	Assignable Parameters
MFX Control	Speed, Tw Fast Rate, Wf Fast Rate, Separation

Parameter	Value	Description
Speed	SLOW, FAST	Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor. **SLOW**: Slows down the rotation to the Slow Rate. **FAST**: Speeds up the rotation to the Fast Rate.
Wf Slow Rate	0.05–10.00 Hz	Slow speed (SLOW) of the low frequency rotor
Wf Fast Rate	0.05–10.00 Hz	Fast speed (FAST) of the low frequency rotor

Parameter	Value	Description
Woofer Accel	0–15	Adjusts the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.
Wf Level	0–127	Volume of the low frequency rotor
Tw Slow Rate	0.05–10.00 Hz	Settings of the high frequency rotor The parameters are the same as for the low frequency rotor
Tw Fast Rate	0.05–10.00 Hz	
Tweeter Accel	0–15	
Tweeter Level	0–127	
Separation	0–127	Spatial dispersion of the sound
Level	0–127	Output Level

22: VK ROTARY

This type provides modified response for the rotary speaker, with the low end boosted further.
This effect is a descendant of the Roland VK Series' built-in rotary speaker.

	Assignable Parameters
MFX Control	Speed, Brake, Tw Fast Rate, Wf Fast Rate

Parameter	Value	Description
Speed	SLOW, FAST	Rotational speed of the rotating speaker
Brake	OFF, ON	Switches the rotation of the rotary speaker. When this is turned on, the rotation will gradually stop. When it is turned off, the rotation will gradually resume.
Wf Slow Rate	0.05–10.00 Hz	Low-speed rotation speed of the woofer
Wf Fast Rate	0.05–10.00 Hz	High-speed rotation speed of the woofer
Wf Trans Up	0–127	Adjusts the rate at which the woofer rotation speeds up when the rotation is switched from Slow to Fast.
Wf Trans Down	0–127	Adjusts the rate at which the woofer rotation speeds up when the rotation is switched from Fast to Slow.
Wf Level	0–127	Volume of the woofer
Tw Slow Rate	0.05–10.00 Hz	Settings of the tweeter The parameters are the same as for the woofer.
Tw Fast Rate	0.05–10.00 Hz	
Tw Trans Up	0–127	
Tw Trans Down	0–127	
Tweeter Level	0–127	
Spread	0–10	Sets the rotary speaker stereo image. The higher the value set, the wider the sound is spread out.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Level	0–127	Output Level

23: CHORUS

This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.

	Assignable Parameters
MFX Control	Depth, Rate, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: No filter is used **LPF**: Cuts the frequency range above the Cutoff Freq **HPF**: Cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

24: FLANGER

This is a stereo flanger. (The LFO has the same phase for left and right.) It produces a metallic resonance that rises and falls like a jet airplane taking off or landing. A filter is provided so that you can adjust the timbre of the flanged sound.

	Assignable Parameters
MFX Control	Depth, Rate, Feedback, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: No filter is used **LPF**: Cuts the frequency range above the Cutoff Freq **HPF**: Cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

25: STEP FLANGR (STEP FLANGER)

This is a flanger in which the flanger pitch changes in steps. The speed at which the pitch changes can also be specified in terms of a note-value of a specified tempo.

	Assignable Parameters
MFX Control	StepRate, Depth, Feedback, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: No filter is used **LPF**: Cuts the frequency range above the Cutoff Freq **HPF**: Cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Step Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
StepRate(Hz)	0.10–20.00 Hz	Rate (period) of pitch change (Hz)
Step Rate (♪)	note (*1)	Rate (period) of pitch change (note)
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

26: HEXA-CHORUS

Uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.

	Assignable Parameters
MFX Control	Depth, Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Pre Delay Deviat	0–20	Adjusts the differences in Pre Delay between each chorus sound.
Depth Deviation	-20– +20	Adjusts the difference in modulation depth between each chorus sound.
Pan Deviation	0–20	Adjusts the difference in stereo location between each chorus sound. **0**: All chorus sounds will be in the center. **20**: Each chorus sound will be spaced at 60 degree intervals relative to the center.
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

27: TREMOLO CHO (TREMOLO CHORUS)

This is a chorus effect with added Tremolo (cyclic modulation of volume).

	Assignable Parameters
MFX Control	Chorus Depth, Cho Rate, Trm Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Cho Rate(Hz)	0.05–10.00 Hz	Modulation frequency of the chorus effect (Hz)
Cho Rate (♪)	note (*1)	Modulation frequency of the chorus effect (note)
Chorus Depth	0–127	Modulation depth of the chorus effect
Treml Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Trm Rate(Hz)	0.05–10.00 Hz	Modulation frequency of the tremolo effect (Hz)
Treml Rate (♪)	note (*1)	Modulation frequency of the tremolo effect (note)
Treml Separation	0–127	Spread of the tremolo effect
Treml Phase	0–180 deg	Spread of the tremolo effect
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the tremolo chorus sound (W)
Level	0–127	Output Level

28: SPACE-D

This is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.

	Assignable Parameters
MFX Control	Depth, Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

29: 3D CHORUS

This applies a 3D effect to the chorus sound. The chorus sound will be positioned 90 degrees left and 90 degrees right.

	Assignable Parameters
MFX Control	Depth, Rate, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: No filter is used **LPF**: Cuts the frequency range above the Cutoff Freq **HPF**: Cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Modulation depth of the chorus effect
Phase	0–180 deg	Spatial spread of the sound
Output Mode	SPEAKER, PHONES	Adjusts the method that will be used to hear the sound that is output to the OUTPUT jacks. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W– D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

30: 3D FLANGER

This applies a 3D effect to the flanger sound. The flanger sound will be positioned 90 degrees left and 90 degrees right.

	Assignable Parameters
MFX Control	Depth, Rate, Feedback, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: no filter is used **LPF**: cuts the frequency range above the Cutoff Freq **HPF**: cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Output Mode	SPEAKER, PHONES	Adjusts the method that will be used to hear the sound that is output to the OUTPUT jacks. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W– D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

31: 3D S.FLANGR (3D STEP FLANGER)

This applies a 3D effect to the step flanger sound. The flanger sound will be positioned 90 degrees left and 90 degrees right.

	Assignable Parameters
MFX Control	StepRate, Depth, Feedback, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: No filter is used **LPF**: Cuts the frequency range above the Cutoff Freq **HPF**: Cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Step Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
StepRate(Hz)	0.10–20.00 Hz	Rate (period) of pitch change (Hz)
Step Rate (♪)	note (*1)	Rate (period) of pitch change (note)
Output Mode	SPEAKER, PHONES	Adjusts the method that will be used to hear the sound that is output to the OUTPUT jacks. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W– D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

32: 2BND CHORUS (2BAND CHORUS)

A chorus effect that lets you apply an effect independently to the low-frequency and high-frequency ranges.

	Assignable Parameters
MFX Control	Low Depth, High Depth, Low Rate, HighRate, Balance

Parameter	Value	Description
Split Freq	200–8000 Hz	Frequency at which the low and high ranges will be divided
Low Pre Delay	0.0–100.0 ms	Delay time from when the original sound is heard to when the low-range chorus sound is heard
Low Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Low Rate(Hz)	0.05–10.00 Hz	Rate at which the low-range chorus sound is modulated (Hz)
Low Rate (♪)	note (*1)	Rate at which the low-range chorus sound is modulated (note)
Low Depth	0–127	Modulation depth for the low-range chorus sound
Low Phase	0–180 deg	Spaciousness of the low-range chorus sound
High Pre Delay	0.0–100.0 ms	Delay time from when the original sound is heard to when the high-range chorus sound is heard
High Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
HighRate(Hz)	0.05–10.00 Hz	Rate at which the low-range chorus sound is modulated (Hz)
High Rate (♪)	note (*1)	Rate at which the low-range chorus sound is modulated (note)
High Depth	0–127	Modulation depth for the high-range chorus sound
High Phase	0–180 deg	Spaciousness of the high-range chorus sound
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and chorus sound (W)
Level	0–127	Output volume

33: 2BND FLANGR (2BAND FLANGER)

A flanger that lets you apply an effect independently to the low-frequency and high-frequency ranges.

	Assignable Parameters
MFX Control	Balance, Low Rate, HighRate, Low Feedback, High Feedback

Parameter	Value	Description
Split Freq	200–8000 Hz	Frequency at which the low and high ranges will be divided
Low Pre Delay	0.0–100.0 ms	Delay time from when the original sound is heard to when the low-range flanger sound is heard
Low Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Low Rate(Hz)	0.05–10.00 Hz	Rate at which the low-range flanger sound is modulated (Hz)
Low Rate (♪)	note (*1)	Rate at which the low-range flanger sound is modulated (note)
Low Depth	0–127	Modulation depth for the low-range flanger sound
Low Phase	0–180 deg	Spaciousness of the low-range flanger sound
Low Feedback	-98– +98%	Proportion of the low-range flanger sound that is to be returned to the input (negative values invert the phase)
High Pre Delay	0.0–100.0 ms	Delay time from when the original sound is heard to when the high-range flanger sound is heard
High Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
HighRate(Hz)	0.05–10.00 Hz	Rate at which the high-range flanger sound is modulated (Hz)
High Rate (♪)	note (*1)	Rate at which the high-range flanger sound is modulated (note)
High Depth	0–127	Modulation depth for the high-range flanger sound
High Phase	0–180 deg	Spaciousness of the high-range flanger sound
High Feedback	-98– +98%	Proportion of the high-range flanger sound that is to be returned to the input (negative values invert the phase)
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and flanger sound (W)
Level	0–127	Output volume

34: 2BND S.FLN (2BAND STEP FLANGER)

A step flanger that lets you apply an effect independently to the low-frequency and high-frequency ranges.

	Assignable Parameters
MFX Control	LoStp Rt, HiStp Rt, Low Feedback, Hi Feedback, Balance

Parameter	Value	Description
Split Freq	200–8000 Hz	Frequency at which the low and high ranges will be divided
Low Pre Delay	0.0–100.0 ms	Delay time from when the original sound is heard to when the low-range flanger sound is heard
Low Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Low Rate(Hz)	0.05–10.00 Hz	Rate at which the low-range flanger sound is modulated (Hz)
Low Rate (♪)	note (*1)	Rate at which the low-range flanger sound is modulated (note)
Low Depth	0–127	Modulation depth for the low-range flanger sound
Low Phase	0–180 deg	Spaciousness of the low-range flanger sound
Low Feedback	-98– +98%	Proportion of the low-range flanger sound that is to be returned to the input (negative values invert the phase)
LoStp Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
LoStp Rt(Hz)	0.10–20.00 Hz	Rate at which the steps will cycle for the low-range flanger sound (Hz)
LoStp Rt(♪)	note (*1)	Rate at which the steps will cycle for the low-range flanger sound (note)
Hi Pre Delay	0.0–100.0 ms	Delay time from when the original sound is heard to when the high-range flanger sound is heard
Hi Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Hi Rate (Hz)	0.05–10.00 Hz	Rate at which the high-range flanger sound is modulated (Hz)
Hi Rate (♪)	note (*1)	Rate at which the high-range flanger sound is modulated (note)
Hi Depth	0–127	Modulation depth for the high-range flanger sound
Hi Phase	0–180 deg	Spaciousness of the high-range flanger sound

Parameter	Value	Description
Hi Feedback	-98– +98%	Proportion of the high-range flanger sound that is to be returned to the input (negative values invert the phase)
HiStp Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
HiStp Rt(Hz)	0.10–20.00 Hz	Rate at which the steps will cycle for the high-range flanger sound (Hz)
HiStp Rt(♪)	note (*1)	Rate at which the steps will cycle for the high-range flanger sound (note)
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and flanger sound (W)
Level	0–127	Output volume

35: OVERDRIVE

Creates a soft distortion similar to that produced by vacuum tube amplifiers.

	Assignable Parameters
MFX Control	Level, Amp Type, Drive, Pan

Parameter	Value	Description
Drive	0–127	Degree of distortion Also changes the volume.
Amp Type	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp **SMALL**: small amp **BUILT-IN**: single-unit type amp **2-STACK**: large double stack amp **3-STACK**: large triple stack amp
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Pan	L64–63R	Stereo location of the output sound
Level	0–127	Output Level

36: DISTORTION

Produces a more intense distortion than Overdrive. The parameters are the same as for "35: OVERDRIVE."

37: VS OVRDRIVE (VS OVERDRIVE)

This is an overdrive that provides heavy distortion.

	Assignable Parameters
MFX Control	Level, Tone, Amp Type, Drive, Pan

Parameter	Value	Description
Drive	0–127	Degree of distortion Also changes the volume.
Tone	0–127	Sound quality of the Overdrive effect
Amp Sw	OFF, ON	Turns the Amp Simulator on/off.
Amp Type	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp **SMALL**: small amp **BUILT-IN**: single-unit type amp **2-STACK**: large double stack amp **3-STACK**: large triple stack amp
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Pan	L64–63R	Stereo location of the output sound
Level	0–127	Output Level

38: VS DIST(VS DISTORTION)

This is a distortion effect that provides heavy distortion. The parameters are the same as for "37: VS OVERDRIVE."

39: GTR AMP SIM (GUITAR AMP SIMULATOR)

This is an effect that simulates the sound of a guitar amplifier.

	Assignable Parameters
MFX Control	Pre Amp Master, Pre Amp Volume, Pre Amp, Speaker

Parameter	Value	Description
Pre Amp Sw	OFF, ON	Turns the amp switch on/off.
Pre Amp	JC-120, CLEAN TWIN, MATCH DRIVE, BG LEAD, MS1959I, MS1959II, MS1959I+II, SLDN LEAD, METAL5150, METAL LEAD, OD-1, OD-2 TURBO, DISTORTION, FUZZ	Type of guitar amp
Pre Amp Volume	0–127	Volume and amount of distortion of the amp
Pre Amp Master	0–127	Volume of the entire pre-amp
Pre Amp Gain	LOW, MIDDLE, HIGH	Amount of pre-amp distortion
Pre Amp Bass	0–127	Tone of the bass/mid/treble frequency range * *Middle cannot be set if "Match Drive" is selected as the Pre Amp Type.*
Pre Amp Middle		
Pre Amp Treble		
Pre Amp Presence	0–127 (MATCH DRIVE: -127 – 0)	Tone for the ultra-high frequency range
Pre Amp Bright	OFF, ON	Turning this "On" produces a sharper and brighter sound. * *This parameter applies to the "JC-120," "Clean Twin," and "BG Lead" Pre Amp Types.*
Speaker Sw	OFF, ON	Determines whether the signal passes through the speaker (ON), or not (OFF).
Speaker	(See the table below.)	Type of speaker
Mic Setting	1, 2, 3	Adjusts the location of the mic that's capturing the sound of the speaker. This can be adjusted in three steps, from 1 to 3, with the mic becoming more distant as the value increases.
Mic Level	0–127	Volume of the microphone
Direct Level	0–127	Volume of the direct sound
Pan	L64–63R	Stereo location of the output
Level	0–127	Output level

Specifications of each Speaker Type

The speaker column indicates the diameter of each speaker unit (in inches) and the number of units.

Type	Cabinet	Speaker	Microphone
SMALL 1	small open-back enclosure	10	dynamic
SMALL 2	small open-back enclosure	10	dynamic
MIDDLE	open back enclosure	12 x 1	dynamic
JC-120	open back enclosure	12 x 2	dynamic

Type	Cabinet	Speaker	Microphone
BUILT-IN 1	open back enclosure	12 x 2	dynamic
BUILT-IN 2	open back enclosure	12 x 2	condenser
BUILT-IN 3	open back enclosure	12 x 2	condenser
BUILT-IN 4	open back enclosure	12 x 2	condenser
BUILT-IN 5	open back enclosure	12 x 2	condenser
BG STACK 1	sealed enclosure	12 x 2	condenser
BG STACK 2	large sealed enclosure	12 x 2	condenser
MS STACK 1	large sealed enclosure	12 x 4	condenser
MS STACK 2	large sealed enclosure	12 x 4	condenser
METAL STACK	large double stack	12 x 4	condenser
2-STACK	large double stack	12 x 4	condenser
3-STACK	large triple stack	12 x 4	condenser

40: COMPRESSOR

Flattens out high levels and boosts low levels, smoothing out fluctuations in volume.

	Assignable Parameters
MFX Control	Threshold, Attack, Level

Parameter	Value	Description
Attack	0–127	Sets the speed at which compression starts
Threshold	0–127	Adjusts the volume at which compression begins
Post Gain	0– +18 dB	Adjusts the output gain.
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Level	0–127	Output level

41: LIMITER

Compresses signals that exceed a specified volume level, preventing distortion from occurring.

	Assignable Parameters
MFX Control	Threshold, Release, Level

Parameter	Value	Description
Release	0–127	Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied.
Threshold	0–127	Adjusts the volume at which compression begins
Ratio	1.5:1, 2:1, 4:1, 100:1	Compression ratio
Post Gain	0– +18 dB	Adjusts the output gain.
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Level	0–127	Output level

42: GATE

Cuts the reverb's delay according to the volume of the sound sent into the effect. Use this when you want to create an artificial-sounding decrease in the reverb's decay.

	Assignable Parameters
MFX Control	Threshold, Hold, Release, Attack, Balance

Parameter	Value	Description
Threshold	0–127	Volume level at which the gate begins to close
Mode	GATE, DUCK	Type of gate **GATE**: The gate will close when the volume of the original sound decreases, cutting the original sound. **DUCK (Ducking)**: The gate will close when the volume of the original sound increases, cutting the original sound.
Attack	0–127	Adjusts the time it takes for the gate to fully open after being triggered.
Hold	0–127	Adjusts the time it takes for the gate to start closing after the source sound falls beneath the Threshold.
Release	0–127	Adjusts the time it takes the gate to fully close after the hold time.
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

43: DELAY

This is a stereo delay.

	Assignable Parameters
MFX Control	Balance, Delay L, Delay R

Parameter	Value	Description
Delay L Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay L (ms)	1–1300 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay L (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Delay R Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay R (ms)	1–1300 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay R (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Phase Left Phase Right	NORMAL, INVERSE	Phase of the delay sound
Feedback Mode	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect. (See the figures above.)
Feedback	-98– +98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output level

44: LONG DELAY

A delay that provides a long delay time.

	Assignable Parameters
MFX Control	Balance, Delay, Pan

Parameter	Value	Description
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Delay time from when the original sound is heard to when the delay sound is heard (Hz)

Parameter	Value	Description
Delay (♪)	note (*1)	Delay time from when the original sound is heard to when the delay sound is heard (note)
Phase	NORMAL, INVERSE	Phase of the delay (**NORMAL**: non-inverted, **INVERT**: inverted)
Feedback	-98– +98%	Proportion of the delay sound that is to be returned to the input (negative values invert the phase)
HF Damp	200–8000 Hz, BYPASS	Frequency at which the high-frequency content of the delayed sound will be cut (BYPASS: no cut)
Pan	L64–63R	Panning of the delay sound
Low Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
High Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and delay sound (W)
Level	0–127	Output volume

45: SERIAL DLY (SERIAL DELAY)

This delay connects two delay units in series. Feedback can be applied independently to each delay unit, allowing you to produce complex delay sounds.

	Assignable Parameters
MFX Control	Balance, Delay1, Delay2, Pan

Parameter	Value	Description
Delay1 Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay1 (ms)	1–1300 ms	Delay time from when sound is input to delay 1 until the delay sound is heard (Hz)
Delay1 (♪)	note (*1)	Delay time from when sound is input to delay 1 until the delay sound is heard (note)
Delay1 Feedback	-98– +98%	Proportion of the delay sound that is to be returned to the input of delay 1 (negative values invert the phase)
Dly1 HF Damp	200–8000 Hz, BYPASS	Frequency at which the high-frequency content of the delayed sound of delay 1 will be cut (BYPASS: no cut)
Delay2 Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay2 (ms)	1–1300 ms	Delay time from when sound is input to delay 2 until the delay sound is heard (Hz)
Delay2 (♪)	note (*1)	Delay time from when sound is input to delay 2 until the delay sound is heard (note)
Delay2 Feedback	-98– +98%	Proportion of the delay sound that is to be returned to the input of delay 2 (negative values invert the phase)
Dly2 HF Damp	200–8000 Hz, BYPASS	Frequency at which the high-frequency content of the delayed sound of delay 2 will be cut (BYPASS: no cut)
Pan	L64–63R	Panning of the delay sound
Low Gain	-15– +15 dB	Amount of boost/cut for the low-frequency range
High Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and delay sound (W)
Level	0–127	Output volume

46: MOD DELAY (MODULATION DELAY)

Adds modulation to the delayed sound.

	Assignable Parameters
MFX Control	Balance, Depth, Delay L, Delay R

Parameter	Value	Description
Delay L Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay L (ms)	1–1300 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay L (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Delay R Mode	ms, note	Settings of the Delay R The parameters are the same as for the Delay L.
Delay R (ms)	1–1300 ms	
Delay R (♪)	note (*1)	
Feedback Mode	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect (See the figures above.)
Feedback	-98– +98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*1)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output level

47: 3TP PAN DLY (3TAP PAN DELAY)

Produces three delay sounds; center, left and right.

	Assignable Parameters
MFX Control	Balance, Delay C, Delay L, Delay R

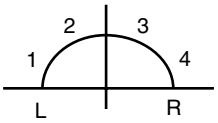
Parameter	Value	Description
Delay L Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay L (ms)	1–2600 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay L (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Delay R Mode	ms, note	Settings of the Delay R The parameters are the same as for the Delay L.
Delay R (ms)	1–2600 ms	
Delay R (♪)	note (*1)	
Delay C Mode	ms, note	Settings of the Delay C The parameters are the same as for the Delay L.
Delay C (ms)	1–2600 ms	
Delay C (♪)	note	
Center Feedback	-98– +98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS.
Left Level	0–127	Volume of each delay

Parameter	Value	Description
Right Level	0–127	Volume of each delay
Center Level	0–127	Volume of each delay
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output level

48: 4TP PAN DLY (4TAP PAN DELAY)

This effect has four delays.

Stereo location of each delay



	Assignable Parameters
MFX Control	Balance, Delay1, Delay2, Delay3, Delay4

Parameter	Value	Description
Delay1 Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay1 (ms)	1–2600 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay1 (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Delay2 Mode	ms, note	Settings of the Delay 2 The parameters are the same as for the Delay 1.
Delay2 (ms)	1–2600 ms	
Delay2 (♪)	note (*1)	
Delay3 Mode	ms, note	Settings of the Delay 3 The parameters are the same as for the Delay 1.
Delay3 (ms)	1–2600 ms	
Delay3 (♪)	note (*1)	
Delay4 Mode	ms, note	Settings of the Delay 4 The parameters are the same as for the Delay 1.
Delay4 (ms)	1–2600 ms	
Delay4 (♪)	note (*1)	
Delay1 Feedback	-98– +98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS.
Delay1 Level	0–127	Volume of each delay
Delay2 Level		
Delay3 Level		
Delay4 Level		
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output level

49: MULTTAP DLY (MULTI TAP DELAY)

This effect provides four delays. Each of the Delay Time parameters can be set to a note length based on the selected tempo. You can also set the panning and level of each delay sound.

	Assignable Parameters
MFX Control	Balance, Delay1, Delay2, Delay3, Delay4

Parameter	Value	Description
Delay1 Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay1 (ms)	1–2600 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay1 (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Delay2 Mode	ms, note	Settings of the Delay 2 The parameters are the same as for the Delay 1.
Delay2 (ms)	1–2600 ms	
Delay2 (♪)	note (*1)	
Delay3 Mode	ms, note	Settings of the Delay 3 The parameters are the same as for the Delay 1.
Delay3 (ms)	1–2600 ms	
Delay3 (♪)	note (*1)	
Delay4 Mode	ms, note	Settings of the Delay 4 The parameters are the same as for the Delay 1.
Delay4 (ms)	1–2600 ms	
Delay4 (♪)	note (*1)	
Delay1 Feedback	-98– +98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any the high frequencies, set this parameter to BYPASS.
Delay1 Pan	L64–63R	Stereo location
Delay2 Pan	L64–63R	
Delay3 Pan	L64–63R	
Delay4 Pan	L64–63R	
Delay1 Level	0–127	Output level of Delays 1
Delay2 Level	0–127	Output level of Delays 2
Delay3 Level	0–127	Output level of Delays 3
Delay4 Level	0–127	Output level of Delays 4
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

50: REVERSE DLY (REVERSE DELAY)

This is a reverse delay that adds a reversed and delayed sound to the input sound. A tap delay is connected immediately after the reverse delay.

	Assignable Parameters
MFX Control	Balance, Rev Dly, Rev Dly Pan

Parameter	Value	Description
Threshold	0–127	Volume at which the reverse delay will begin to be applied
Rev Dly Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Rev Dly (ms)	1–1300 ms	Delay time from when sound is input into the reverse delay until the delay sound is heard (Hz)
Rev Dly (♪)	note (*1)	Delay time from when sound is input into the reverse delay until the delay sound is heard (note)
Rev Dly Fbk	-98– +98%	Proportion of the delay sound that is to be returned to the input of the reverse delay (negative values invert the phase)

Parameter	Value	Description
Rev Dly HFDmp	200–8000 Hz, BYPASS	Frequency at which the high-frequency content of the reverse-delayed sound will be cut (BYPASS: no cut)
Rev Dly Pan	L64–63R	Panning of the reverse delay sound
Rev Dly Level	0–127	Volume of the reverse delay sound
Delay1 Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay1 (ms)	1–1300 ms	Delay time from when sound is input into the tap delay until the delay sound is heard (Hz)
Delay1 (♪)	note (*1)	Delay time from when sound is input into the tap delay until the delay sound is heard (note)
Delay2 Mode	ms, note	Settings of the Delay 2 The parameters are the same as for the Delay 1.
Delay2 (ms)	1–1300 ms	
Delay2 (♪)	note (*1)	
Delay3 Mode	ms, note	Settings of the Delay 3 The parameters are the same as for the Delay 1.
Delay3 (ms)	1–1300 ms	
Delay3 (♪)	note (*1)	
Delay3 Feedback	-98– +98%	Proportion of the delay sound that is to be returned to the input of the tap delay (negative values invert the phase)
Delay HF Damp	200–8000 Hz, BYPASS	Frequency at which the low-frequency content of the tap delay sound will be cut (BYPASS: no cut)
Delay1 Pan	L64–63R	Panning of the tap delay sounds
Delay2 Pan		
Delay1 Level	0–127	Volume of the tap delay sounds
Delay2 Level		
Low Gain	-15– +15 dB	Amount of boost/cut for the low-frequency range
High Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and delay sound (W)
Level	0–127	Output volume

51: SHUFFLE DLY (SHUFFLE DELAY)

Adds a shuffle to the delay sound, giving the sound a bouncy delay effect with a swing feel.

	Assignable Parameters
MFX Control	Balance, Delay, Shuffle Rate

Parameter	Value	Description
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the time until the delay sound is heard. (note)
Shuffle Rate	0–100 %	Adjusts the ratio (as a percentage) of the time that elapses before Delay B sounds relative to the time that elapses before the Delay A sounds. When set to 100%, the delay times are the same.
Acceleration	0–15	Adjusts the time over which the Delay Time changes from the current setting to its specified new setting.
Feedback	-98– +98 %	Adjusts the amount of the delay that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.
Pan A	L64–63R	Stereo location of Delay A/B
Pan B		
Level A	0–127	Volume of delay A/B
Level B		
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

52: 3D DELAY

This applies a 3D effect to the delay sound. The delay sound will be positioned 90 degrees left and 90 degrees right.

	Assignable Parameters
MFX Control	Balance, Delay C, Delay L, Delay R

Parameter	Value	Description
Delay L Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay L (ms)	1–2600 ms	Adjusts the delay time from the direct sound until the delay sound is heard. (Hz)
Delay L (♪)	note (*1)	Adjusts the delay time from the direct sound until the delay sound is heard. (note)
Delay R Mode	ms, note	Settings of the Delay R The parameters are the same as for the Delay 1.
Delay R (ms)	1–2600 ms	
Delay R (♪)	note (*1)	
Delay C Mode	ms, note	Settings of the Delay C The parameters are the same as for the Delay 1.
Delay C (ms)	1–2600 ms	
Delay C (♪)	note (*1)	
Center Feedback	-98– +98 %	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Left Level	0–127	Output level of the delay sound
Right Level		
Center Level		
Output Mode	SPEAKER, PHONES	Adjusts the method that will be used to hear the sound that is output to the OUTPUT jacks. The optimal 3D effect will be achieved if you select SPEAKER when using speakers, or PHONES when using headphones.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output Level

53: T-CTRL DLY(TIME CTRL DELAY)

A stereo delay in which the delay time can be varied smoothly.

	Assignable Parameters
MFX Control	Balance, Delay

Parameter	Value	Description
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–1300 ms	Adjusts the time until the delay is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the time until the delay is heard. (note)
Acceleration	0–15	Adjusts the time over which the Delay Time changes from the current setting to a specified new setting. The rate of change for the Delay Time directly affects the rate of pitch change.
Feedback	-98– +98 %	Adjusts the amount of the delay that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS.
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output level

54: LONG TC DLY (LONG TIME CTRL DELAY)

A delay in which the delay time can be varied smoothly, and allowing an extended delay to be produced.

	Assignable Parameters
MFX Control	Balance, Delay

Parameter	Value	Description
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Adjusts the time until the delay is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the time until the delay is heard. (note)
Acceleration	0–15	Adjusts the time over which the Delay Time changes from the current setting to a specified new setting. The rate of change for the Delay Time directly affects the rate of pitch change.
Feedback	-98– +98 %	Adjusts the amount of the delay that's fed back into the effect. Negative (-) settings invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS.
Pan	L64–63R	Stereo location of the delay
Low Gain	-15– +15 dB	Gain of the low frequency range
High Gain	-15– +15 dB	Gain of the high frequency range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output level

55: TAPE ECHO

A virtual tape echo that produces a realistic tape delay sound. This simulates the tape echo section of a Roland RE-201 Space Echo.

	Assignable Parameters
MFX Control	Echo Level, Repeat Rate, Mode

Parameter	Value	Description
Mode	S, M, L, S+M, S+L, M+L, S+M+L	Combination of playback heads to use Select from three different heads with different delay times. **S**: short **M**: middle **L**: long
Repeat Rate	0–127	Tape speed Increasing this value will shorten the spacing of the delayed sounds.
Intensity	0–127	Amount of delay repeats
Bass	-15– +15 dB	Boost/cut for the lower range of the echo sound
Treble	-15– +15 dB	Boost/cut for the upper range of the echo sound
Head S Pan	L64–63R	Independent panning for the short, middle, and long playback heads
Head M Pan		
Head L Pan		
Tape Distortion	0–5	Amount of tape-dependent distortion to be added This simulates the slight tonal changes that can be detected by signal-analysis equipment. Increasing this value will increase the distortion.
W/F Rate	0–127	Speed of wow/flutter (complex variation in pitch caused by tape wear and rotational irregularity)
W/F Depth	0–127	Depth of wow/flutter
Echo Level	0–127	Volume of the echo sound
Direct Level	0–127	Volume of the original sound
Level	0–127	Output level

56: LOFI NOISE

In addition to a lo-fi effect, this adds various types of noise such as white noise and disc noise.

	Assignable Parameters
MFX Control	Balance, Hum Noise Level, Disc Noise Level, Noise Level, LoFi Type

Parameter	Value	Description
LoFi Type	1–9	Degrades the sound quality. The sound quality grows poorer as this value is increased.
Post Fltr Type	OFF, LPF, HPF	Type of filter **OFF**: no filter is used **LPF**: cuts the frequency range above the Cutoff **HPF**: cuts the frequency range below the Cutoff
Post F-Cutoff	200–8000 Hz	Center frequency of the filter
Noise Type	WHITE, PINK	Switch between white noise and pink noise.
Noise LPF	200–8000 Hz, BYPASS	Center frequency of the low pass filter applied to the white/pink noise (BYPASS: no cut)
Noise Level	0–127	Volume of the white/pink noise
Disc Noise Type	LP, EP, SP, RND	Type of record noise The frequency at which the noise is heard depends on the selected type.
DiscNoise LPF	200–8000 Hz, BYPASS	Adjusts the cutoff frequency of the low pass filter applied to the record noise. If you don't want to filter out any high frequencies, set this parameter to BYPASS.

Parameter	Value	Description
Disc Noise Level	0–127	Volume of the record noise
Hum Noise Type	50 Hz, 60 Hz	Frequency of the hum noise
Hum Noise LPF	200–8000 Hz, BYPASS	Center frequency of the low pass filter applied to the hum noise (BYPASS: no cut)
Hum Noise Level	0–127	Volume of the hum noise
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

57: LOFI COMPRS (LOFI COMPRESS)

This is an effect that intentionally degrades the sound quality for creative purposes.

	Assignable Parameters
MFX Control	Balance, LoFi Type

Parameter	Value	Description
Pre Filter Type	1–6	Selects the type of filter applied to the sound before it passes through the Lo-Fi effect.
LoFi Type	1–9	Degrades the sound quality. The sound quality grows poorer as this value is increased.
Post Fltr Type	OFF, LPF, HPF	Type of filter **OFF**: no filter is used **LPF**: cuts the frequency range above the Cutoff **HPF**: cuts the frequency range below the Cutoff
Post F-Cutoff	200–8000 Hz	Basic frequency of the Post Filter
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

58: LOFI RADIO

In addition to a Lo-Fi effect, this effect also generates radio noise.

	Assignable Parameters
MFX Control	Balance, Radio Detune, Radio Noise Lev, LoFi Type

Parameter	Value	Description
LoFi Type	1–9	Degrades the sound quality. The sound quality grows poorer as this value is increased.
Post Fltr Type	OFF, LPF, HPF	Type of filter **OFF**: no filter is used **LPF**: cuts the frequency range above the Cutoff **HPF**: cuts the frequency range below the Cutoff
Post F-Cutoff	200–8000 Hz	Basic frequency of the Post Filter
Radio Detune	0–127	Simulates the tuning noise of a radio. As this value is raised, the tuning drifts further.
Radio Noise Lev	0–127	Volume of the radio noise
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

59: TELEPHONE

	Assignable Parameters
MFX Control	Balance, Voice Quality

Parameter	Value	Description
Voice Quality	0–15	Audio quality of the telephone voice
Treble	-15– +15 dB	Bandwidth of the telephone voice
Balance	D100:0–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

60: PHONOGRAPH

Simulates a sound recorded on an analog record and played back on a record player. This effect also simulates the various types of noise that are typical of a record, and even the rotational irregularities of an old turntable.

	Assignable Parameters
MFX Control	Total Noise Lev, Total W/F, Frequency Range, Balance

Parameter	Value	Description
Signal Dist	0–127	Depth of distortion
Frequency Range	0–127	Frequency response of the playback system Decreasing this value will produce the impression of an old system with a poor frequency response.
Disc Type	LP, EP, SP	Rotational speed of the turntable This will affect the frequency of the scratch noise.
ScratchNoise Lev	0–127	Amount of noise due to scratches on the record
Dust Noise Lev	0–127	Volume of noise due to dust on the record
Hiss Noise Lev	0–127	Volume of continuous “hiss”
Total Noise Lev	0–127	Volume of overall noise
Wow	0–127	Depth of long-cycle rotational irregularity
Flutter	0–127	Depth of short-cycle rotational irregularity
Random	0–127	Depth of indefinite-cycle rotational irregularity
Total W/F	0–127	Depth of overall rotational irregularity
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
Level	0–127	Output level

61: PCH SHIFTER (PITCH SHIFTER)

A stereo pitch shifter.

	Assignable Parameters
MFX Control	Balance, Fine, Coarse, Delay

Parameter	Value	Description
Coarse	-24– +12 semi	Adjusts the pitch of the pitch shifted sound in semitone steps.
Fine	-100– +100 cent	Adjusts the pitch of the pitch shifted sound in 2-cent steps.
Delay Mode	ms, note	When this is set to “note,” the effect is synchronized with the tempo.
Delay (ms)	1–1300 ms	Adjusts the delay time from the direct sound until the pitch shifted sound is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the delay time from the direct sound until the pitch shifted sound is heard. (note)

Parameter	Value	Description
Feedback	-98– +98 %	Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
Level	0–127	Output Level

62: 2V P.SHIFTR (2VOICE PITCH SHIFTER)

Shifts the pitch of the original sound. This 2-voice pitch shifter has two pitch shifters, and can add two pitch shifted sounds to the original sound.

	Assignable Parameters
MFX Control	Balance, Pch1 Coarse, Pch2 Coarse, Pch1 Dly, Pch2 Dly

Parameter	Value	Description
Pch1 Coarse	-24–+12 semi	Adjusts the pitch of Pitch Shift 1 in semitone steps.
Pch1 Fine	-100–+100 cent	Adjusts the pitch of Pitch Shift Pitch 1 in 2-cent steps.
Pch1 Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Pch1 Dly (ms)	1–1300 ms	Adjusts the delay time from the direct sound until the Pitch Shift 1 sound is heard. (Hz)
Pch1 Delay (♪)	note (*1)	Adjusts the delay time from the direct sound until the Pitch Shift 1 sound is heard. (note)
Pch1 Feedback	-98– +98 %	Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase.
Pch1 Pan	L64–63R	Stereo location of the Pitch Shift 1 sound
Pch1 Level	0–127	Volume of the Pitch Shift1 sound
Pch2 Coarse	-24–+12 semi	Settings of the Pitch Shift 2 sound. The parameters are the same as for the Pitch Shift 1 sound.
Pch2 Fine	-100–+100 cent	
Pch2 Delay Mode	ms, note	
Pch2 Dly (ms)	1–1300 ms	
Pch2 Delay (♪)	note (*1)	
Pch2 Feedback	-98– +98 %	
Pch2 Pan	L64–63R	
Pch2 Level	0–127	
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
Level	0–127	Output Level

63: S.P.SHIFTER (STEP PITCH SHIFTER)

A pitch shifter in which the amount of pitch shift is varied by a 16-step sequence.

	Assignable Parameters
MFX Control	Rate, Attack, Gate Time, Balance

Parameter	Value	Description
Step 01–16	-24–+12 semi	Amount of pitch shift at each step (semitone units)
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Rate at which the 16-step sequence will cycle (Hz)
Rate (♪)	note (*1)	Rate at which the 16-step sequence will cycle (note)
Attack	0–127	Speed at which the amount of pitch shift changes between steps
Gate Time	0–127	Duration of the pitch shifted sound at each step
Fine	-100– +100 cent	Pitch shift adjustment for all steps (2-cent units)
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–1300 ms	Delay time from the original sound until the pitch-shifted sound is heard (Hz)
Delay (♪)	note (*1)	Delay time from the original sound until the pitch-shifted sound is heard (note)
Feedback	-98– +98%	Proportion of the pitch-shifted sound that is to be returned to the input (negative values invert the phase)
Low Gain	-15– +15 dB	Amount of boost/cut for the low-frequency range
High Gain	-15– +15 dB	Amount of boost/cut for the high-frequency range
Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and pitch-shifted sound (W)
Level	0–127	Output volume

64: REVERB

Adds reverberation to the sound, simulating an acoustic space.

	Assignable Parameters
MFX Control	Time, Type, Balance

Parameter	Value	Description
Type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2	Type of reverb **ROOM1**: dense reverb with short decay **ROOM2**: sparse reverb with short decay **STAGE1**: reverb with greater late reverberation **STAGE2**: reverb with strong early reflections **HALL1**: reverb with clear reverberance **HALL2**: reverb with rich reverberance
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time	0–127	Time length of reverberation
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which the reverberant sound will be cut. As the frequency is set lower, more of the high frequencies will be cut, resulting in a softer and more muted reverberance. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the reverb sound (W)
Level	0–127	Output Level

65: GATED REV (GATED REVERB)

This is a special type of reverb in which the reverberant sound is cut off before its natural length.

	Assignable Parameters
MFX Control	Balance

Parameter	Value	Description
Type	NORMAL, REVERSE, SWEEP1, SWEEP2	Type of reverb **NORMAL**: conventional gated reverb **REVERSE**: backwards reverb **SWEEP1**: the reverberant sound moves from right to left **SWEEP2**: the reverberant sound moves from left to right
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the reverb sound is heard.
Gate Time	5–500 ms	Adjusts the time from when the reverb is heard until it disappears.
Low Gain	-15– +15 dB	Gain of the low range
High Gain	-15– +15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the reverb sound (W)
Level	0–127	Output Level

66: OVDRV→CHO (OVERDRIVE→CHORUS)

This effect connects an overdrive and a chorus in series.

	Assignable Parameters
MFX Control	Chorus Bal, Cho Rate, Chorus Depth, Overdrive Drive

Parameter	Value	Description
Overdrive Drive	0–127	Degree of distortion Also changes the volume.
Overdrive Pan	L64–63R	Stereo location of the overdrive sound
Chorus PreDly	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Cho Rate(Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Cho Rate (♪)	note (*1)	Frequency of modulation (note)
Chorus Depth	0–127	Depth of modulation
Chorus Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).
Level	0–127	Output Level

67: OVDRV→FLNGR (OVERDRIVE→FLANGER)

This effect connects an overdrive and a flanger in series.

	Assignable Parameters
MFX Control	Flngr Bal, Fln Rate, Flngr Depth, Flngr Feedback, Overdrive Drive

Parameter	Value	Description
Overdrive Drive	0–127	Degree of distortion Also changes the volume.
Overdrive Pan	L64–63R	Stereo location of the overdrive sound
Flngr PreDly	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flngr Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Fln Rate(Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Fln Rate(♪)	note (*1)	Frequency of modulation (note)
Flngr Depth	0–127	Depth of modulation
Flngr Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0–127	Output Level

68: OVDRV→DELAY (OVERDRIVE→DELAY)

This effect connects an overdrive and a delay in series.

	Assignable Parameters
MFX Control	Delay Bal, Overdrive Drive

Parameter	Value	Description
Overdrive Drive	0–127	Degree of distortion Also changes the volume.
Overdrive Pan	L64–63R	Stereo location of the overdrive sound
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Adjusts the delay time from the direct sound until the delay sound is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the delay time from the direct sound until the delay sound is heard. (note)
Delay Feedback	-98– +98 %	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

69: DIST→CHORUS (DISTORTION→CHORUS)

The parameters are essentially the same as in "66: OVERDRIVE → CHORUS," with the exception of the following two.

Overdrive Drive→Distortion Drive

Overdrive Pan→Distortion Pan

70: DIST→FLANGR (DISTORTION→FLANGER)

The parameters are essentially the same as in "67: OVERDRIVE → FLANGER," with the exception of the following two.

Overdrive Drive→Distortion Drive

Overdrive Pan→Distortion Pan

71: DIST→DELAY (DISTORTION→DELAY)

The parameters are essentially the same as in "68: OVERDRIVE→DELAY," with the exception of the following two.

Overdrive Drive→Distortion Drive

Overdrive Pan→Distortion Pan

72: ENH→CHORUS (ENHANCER→CHORUS)

This effect connects an enhancer and a chorus in series.

	Assignable Parameters
MFX Control	Chorus Bal, Chorus Depth, Cho Rate, Enhancer Sens

Parameter	Value	Description
Enhancer Sens	0–127	Sensitivity of the enhancer
Enhancer Mix	0–127	Level of the overtones generated by the enhancer
Chorus PreDly	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Cho Rate(Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Cho Rate (♪)	note (*1)	Frequency of modulation (note)
Chorus Depth	0–127	Depth of modulation
Chorus Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).
Level	0–127	Output Level

73: ENH→FLANGER (ENHANCER→FLANGER)

This effect connects an enhancer and a flanger in series.

	Assignable Parameters
MFX Control	Flngr Bal, Fln Rate, Flngr Depth, Flngr Feedback, Enhancer Sens

Parameter	Value	Description
Enhancer Sens	0–127	Sensitivity of the enhancer
Enhancer Mix	0–127	Level of the overtones generated by the enhancer
Flngr PreDly	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flngr Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Fln Rate(Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Fln Rate(♪)	note (*1)	Frequency of modulation (note)
Flngr Depth	0–127	Depth of modulation
Flngr Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0–127	Output Level

74: ENH→DELAY (ENHANCER→DELAY)

This effect connects an enhancer and a delay in series.

	Assignable Parameters
MFX Control	Delay Bal, Enhancer Sens

Parameter	Value	Description
Enhancer Sens	0–127	Sensitivity of the enhancer
Enhancer Mix	0–127	Level of the overtones generated by the enhancer
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Adjusts the delay time from the direct sound until the delay sound is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the delay time from the direct sound until the delay sound is heard. (note)
Delay Feedback	-98– +98 %	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

75: CHO→DELAY (CHORUS→DELAY)

This effect connects a chorus and a delay in series.

	Assignable Parameters
MFX Control	Delay Bal, Chorus Bal, Chorus Depth, Cho Rate

Parameter	Value	Description
Chorus PreDly	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Cho Rate(Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Cho Rate (♪)	note (*1)	Frequency of modulation (note)
Chorus Depth	0–127	Depth of modulation
Chorus Bal	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Adjusts the delay time from the direct sound until the delay sound is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the delay time from the direct sound until the delay sound is heard. (note)
Delay Feedback	-98– +98 %	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.

Parameter	Value	Description
Delay Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

76: FLN→DELAY (FLANGER→DELAY)

This effect connects a flanger and a delay in series.

	Assignable Parameters
MFX Control	Delay Bal, Flngr Bal, Fln Rate, Flngr Feedback

Parameter	Value	Description
Flngr PreDly	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flngr Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Fln Rate(Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Fln Rate(♪)	note (*1)	Frequency of modulation (note)
Flngr Depth	0–127	Depth of modulation
Flngr Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Delay Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay (ms)	1–2600 ms	Adjusts the delay time from the direct sound until the delay sound is heard. (Hz)
Delay (♪)	note (*1)	Adjusts the delay time from the direct sound until the delay sound is heard. (note)
Delay Feedback	-98– +98 %	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

77: CHO→FLANGER (CHORUS→FLANGER)

This effect connects a chorus and a flanger in series.

	Assignable Parameters
MFX Control	Chorus Bal, Flngr Bal, Chorus Depth, Cho Rate, Fln Rate, Flngr Feedback

Parameter	Value	Description
Chorus PreDly	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Cho Rate(Hz)	0.05–10.00 Hz	Modulation frequency of the chorus effect (Hz)
Cho Rate (♪)	note (*1)	Modulation frequency of the chorus effect (note)
Chorus Depth	0–127	Modulation depth of the chorus effect
Chorus Bal	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Flngr PreDly	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flngr Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Fln Rate(Hz)	0.05-10.00 Hz	Modulation frequency of the flanger effect (Hz)
Fln Rate(♪)	note (*1)	Modulation frequency of the flanger effect (note)
Flngr Depth	0-127	Modulation depth of the flanger effect
Flngr Feedback	-98– +98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0–127	Output Level

78: SYM.RESONCE (SYMPATHETIC RESONANCE)

On an acoustic piano, holding down the damper pedal allows other strings to resonate in sympathy with the notes you play, creating rich and spacious resonances. This effect simulates these sympathetic resonances.

	Assignable Parameters
MFX Control	Depth, Damper, P-Sft Amount, P-Sft Level

Parameter	Value	Description
Depth	0–10	Depth of the effect
Damper	0–127	Depth to which the damper pedal is pressed (controls the resonant sound)
Pre LPF	16–15000 Hz, BYPASS	Frequency of the filter that cuts the high-frequency content of the input sound (BYPASS: no cut)
Pre HPF	BYPASS, 16–15000 Hz	Frequency of the filter that cuts the low-frequency content of the input sound (BYPASS: no cut)
Peaking Freq	200–8000 Hz	Frequency of the filter that boosts/cuts a specific frequency region of the input sound
Peaking Gain	-15– +15 dB	Amount of boost/cut produced by the filter at the specified frequency region of the input sound
Peaking Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the frequency region boosted/cut by the `Peaking Gain' parameter (larger values make the region narrower)
HF Damp	16–15000 Hz, BYPASS	Frequency at which the high-frequency content of the resonant sound will be cut (BYPASS: no cut)
LF Damp Freq	BYPASS, 16–15000 Hz	Frequency at which the low-frequency content of the resonant sound will be cut (BYPASS: no cut)
Level	0–127	Output Level
P-Sft Amount	0–10	Amount of resonance
P-Sft Level	0–10	Volume level of the resonant component
P-Sft LPF	16–15000 Hz, BYPASS	Basic frequency at which the filter cuts the high-frequency portion of the resonant component (BYPASS: no cut)
P-Sft HPF	BYPASS, 16–15000 Hz	Basic frequency at which the filter cuts the low-frequency portion of the resonant component (BYPASS: no cut)

Parameter	Value	Description
P-Sft to Rev	0–127	Volume of additional resonance added to resonant component
Damper offset	0–64	As the value is increased, more of a slight resonance is added to the sound, even when the damper pedal is not pressed

79: PIANO EFX (PIANO EFFECTS)

This effect enhances the realism of piano tones used with One Touch Piano.

	Assignable Parameters
MFX Control	Lid, Piano Ambience, Mic Type, Mic Distance

Parameter	Value	Description
Lid	1–6	This reproduces the change in sound that occurs when a grand piano's lid is raised or lowered.
Mic Distance	0–10	This sets the apparent distance of the microphone used in recording the piano's sound
Mic Type	OFF, CONDENSER, DYNAMIC	This sets the kind of the microphone used in recording the piano's sound
EQ Switch	OFF, ON	Equalizer switch
EQ Mid Freq	100–4000Hz	Equalizer's basic frequency
EQ Mid Gain	-12.0–+12.0 dB	Amount of boost or cut from the equalizer
EQ Mid Q	0.5, 1.0, 2.0, 4.0, 8.0	Equalizer bandwidth (bandwidth narrows as value is increased)
Piano Ambience	0–5	Piano reverberation
Level	0–127	Output volume

80: E.PIANO EFX (E. PINO EFFECTS)

This effect enhances the realism of elctric piano tones used with One Touch E.Piano.

	Assignable Parameters
MFX Control	Tone Control, Amp Type

Parameter	Value	Description
Tone Control	0–127	With 64 as the reference value, increasing the value boosts the high end, while lowering the value boosts the low end.
Amp Type	OFF, EP-AMP, GTR-AMP	Amp Type
EQ Switch	OFF, ON	Equalizer switch
EQ Mid Freq	100–4000Hz	Equalizer's basic frequency
EQ Mid Gain	-12.0–+12.0 dB	Amount of boost or cut from the equalizer
EQ Mid Q	0.5, 1.0, 2.0, 4.0, 8.0	Equalizer bandwidth (bandwidth narrows as value is increased)
Level	0–127	Output volume

81: VR CHORUS

This chorus is a descendant of the Roland VR Series effects.

	Assignable Parameters
MFX Control	Depth, Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100 ms	Amount of time that it is to take for the chorus sound to be produced after the original sound has sounded.
Rate Mode	Hz, Note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Modulation rate (Hz)
Rate (♪)	note (*1)	Modulation rate (note)
Depth	0–127	Modulation Depth
Phase	0–180 deg	Amount of breadth in the chorus sound
Balance	D100:0W–D0:100W	Volume balance between the original, dry sound (D) and the chorus sound (W)
Level	0–127	Output volume

82: VR TREMOLO

This tremolo is a descendant of the Roland VR Series effects. This changes the volume level in a cyclic manner.
Switching between the Mono and Stereo Tremolo Type settings also switches the volume control waveform.

	Assignable Parameters
MFX Control	Rate, Depth, Tremolo Type

Parameter	Value	Description
Tremolo Type	Mono, Stereo	**Mono:** The left and right volume levels change simultaneously. **Stereo:** The left and right volume levels change in alternating fashion.
Rate Mode	Hz, Note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency at which the effect is applied (Hz)
Rate (♪)	note (*1)	Frequency at which the effect is applied (note)
Depth	0–127	Depth of the effect
Low Gain	-15–+15 dB	Boost or cut in the low end
High Gain	-15–+15 dB	Boost or cut in the high end
Level	0–127	Output volume

83: VR AUTO WAH

This wah is a descendant of the Roland VR Series effects. This is a special wah effect (an effect in which the tone is changed cyclically) produced by shifting the filter in a cyclic fashion.
You can switch the Control Type parameter to select from Auto Wah, Touch Wah, or Pedal Wah.

	Assignable Parameters
MFX Control	Rate, Depth, Peak, Manual

Parameter	Value	Description
Control Type	MOD, TOUCH, PEDAL	**Effect Control Types** **MOD:** The tone changes at the set rate. **TOUCH:** The tone changes in response to changes in the volume. **PEDAL:** The tone changes according to the function of the Manual parameter. Can be used as a pedal wah.
Filter Type	LPF, BPF	**Filter Type** **LPF:** Produces a wah effect over a wide frequency range. **BPF:** Produces a wah effect over a narrow frequency range.
Manual	0–127	When Control Type is set to "PEDAL," you can use this parameter to change the tone.
Peak	0–127	Wah effect bandwidth The bandwidth narrows as the value is increased.
Rate Mode	Hz, Note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Wah effect rate

Parameter	Value	Description
Rate (♪)	note (*1)	Wah effect rate (note) When Control Type is set to "TOUCH," this adjusts the sensitivity to the volume used in changing the tone.
Depth	0–127	Depth of the wah effect's sweep
Phase	0–180 deg	Ratio of the wah effect sound in the left and right sides when the spread is not distributed evenly
Low Gain	-15–+15 dB	Boost or cut in the low end
High Gain	-15–+15 dB	Boost or cut in the high end
Level	0–127	Output volume

TIP

Settings when using a pedal wah with a pedal connected to FC1

- MFX Control: Manual
- Control Type: PEDAL
- EDIT/ 2. Control/ FC1: MFX Control

84: VR PHASER

This phaser is a descendant of the Roland VR Series effects. This creates a swirling effect by adding sounds that are out of phase with the original sound.

	Assignable Parameters
MFX Control	Rate, Resonance, Depth

Parameter	Value	Description
Rate Mode	Hz, Note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Phaser Frequency (Hz)
Rate (♪)	note (*1)	Phaser Frequency (note)
Depth	0–127	Depth
Resonance	0–127	Feedback Level
Step Sw	OFF, ON	Setting this to ON creates a step phaser.
Step Rate Mode	Hz, Note	When this is set to "note," the effect is synchronized with the tempo.
StepRate(Hz)	0.10–20.00 Hz	Rate of stepped changes in phaser effect (Hz)
Step Rate (♪)	note (*1)	Rate of stepped changes in phaser effect (note)
Low Gain	-15–+15 dB	Boost or cut in the low end
High Gain	-15–+15 dB	Boost or cut in the high end
Level	0–127	Output volume

85: ORGAN MULTI

This is an effect combining the VK series internal effect with an organ effect with the same features.
It comprises vibrato/chorus, overdrive, and rotary effects.

	Assignable Parameters
MFX Control	Rotary Speed, OD Drive

Parameter	Value	Description
Vib/Cho Switch	OFF, ON	Switches the vibrato and chorus effects
Vib/Cho Type	V-1, V-2, V-3, C-1, C-2, C-3	**Vibrato and chorus effect types** **V-1, V-2, V-3:** Adds a wavering (vibrato) that is created by changes in the pitch. The effect deepens as the value is increased **C-1, C-2, C-3:** Adds a fullness and breadth (chorus) to the sound. The effect deepens as the value is increased.
Vib/Cho Vintage	'50, '60, '70	This reproduces the subtle differences in the vibrato and chorus effects in organs built in different years.
Vib/Cho Level	0–127	Vibrato/chorus effect volume
OD Switch	OFF, ON	Switches the overdrive effect
OD Drive	0–127	Amount of distortion
OD Level	0–127	Overdrive effect volume
Rotary Switch	OFF, ON	Switches the rotary effect
Rotary Speed	SLOW, FAST	Low– and high-frequency rotation speeds (Rate) **SLOW**: (Slow Rate) **FAST**: (Fast Rate)
R-Wf Slow Sp	0.05–10.00 Hz	Rate with low-frequency rotor set to SLOW rate
R-Wf Fast Sp	0.05–10.00 Hz	Rate with low-frequency rotor set to FAST rate
R-Wf Accel	0–15	Speed at which the low-frequency rotor's rotation rate changes when the rotation speed is switched
R-Wf Level	0–127	Low-frequency rotor volume
R-Tw Slow Sp	0.05–10.00 Hz	High-frequency rotor setting This parameter is the same as that for the low-frequency rotor.
R-Tw Fast Sp	0.05–10.00 Hz	
R-Tw Accel	0–15	
R-Tw Level	0–127	
Rotary Separat	0–127	Amount of breadth in the sound
Rotary Level	0–127	Output volume

86: *STEREO EQ (STEREO EQUALIZER)

This is a four-band stereo equalizer (low, mid x 2, high).

	Assignable Parameters
MFX Control	Level

Parameter	Value	Description
Low Freq	200, 400 Hz	Select the frequency of the low range (200 Hz/400 Hz).
Low Gain	-15– +15 dB	Adjust the gain of the low frequency. Positive (+) settings will emphasize (boost) the low frequency range.
High Freq	2000, 4000, 8000 Hz	Select the frequency of the high range (2000 Hz/4000 Hz/8000 Hz).
High Gain	-15– +15 dB	Adjust the gain of the high frequency. Positive (+) settings will emphasize (boost) the high frequency range.
P1 Freq	200–8000Hz	Adjust the frequency of Middle 1 (mid range).
P1 Q	0.5, 1.0, 2.0, 4.0, 8.0	This parameter adjusts the width of the area around the Middle 1 Frequency that will be affected by the Gain setting. Higher values of Middle 1 Q will result in a narrower area being affected.
P1 Gain	-15– +15 dB	Adjust the gain for the area specified by the Middle 1 Frequency and Q settings. Positive (+) settings will emphasize (boost) the Middle 1 range.
P2 Freq	200–8000 Hz	Adjust the frequency of Middle 2 (mid range).

Parameter	Value	Description
P2 Q	0.5, 1.0, 2.0, 4.0, 8.0	This parameter adjusts the width of the area around the Middle 2 Frequency that will be affected by the Gain setting. Higher values of Middle 2 Q will result in a narrower area being affected.
P2 Gain	-15– +15 dB	Adjust the gain for the area specified by the Middle 2 Frequency and Q settings. Positive (+) settings will emphasize (boost) the Middle 2 range.
Level	0–127	Adjust the output level.

87: *OVERDRIVE

This effect creates a soft distortion similar to that produced by vacuum tube amplifiers.

	Assignable Parameters
MFX Control	Drive, Amp Type, Pan

Parameter	Value	Description
Drive	0–127	Adjust the degree of distortion. The volume will change together with the degree of distortion.
Pan	L64–0–63R	Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.
Amp Type	SMALL, BUILT-IN, 2-STACK, 3-STACK	Select the type of guitar amp. **SMALL**: small amp **BUILT-IN**: single-unit type amp **2-STACK**: large double stack amp **3-STACK**: large triple stack amp
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Level	0–127	Adjust the output level. It's a good idea to use this Parameter to adjust the difference in volume between when Overdrive is applied and when it is not applied.

88: *DISTORTION

This effect produces a more intense distortion than Overdrive.

	Assignable Parameters
MFX Control	Drive, Amp Type, Pan

Parameter	Value	Description
Drive	0–127	Adjust the degree of distortion. The volume will change together with the degree of distortion.
Pan	L64–0–63R	Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.
Amp Type	SMALL, BUILT-IN, 2-STACK, 3-STACK	Select the type of guitar amp. **SMALL**: small amp **BUILT-IN**: single-unit type amp **2-STACK**: large double stack amp **3-STACK**: large triple stack amp
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Level	0–127	Adjust the output level. It's a good idea to use this parameter to adjust the difference in volume between when Distortion is applied and when it is not applied.

89: *PHASER

A phaser adds a phase-shifted sound to the direct sound, producing a twisting modulation that creates spaciousness and depth.

	Assignable Parameters
MFX Control	Rate, Depth, Manual

Parameter	Value	Description
Manual	100–8000 Hz	Adjust the basic frequency from which the sound will be modulated.
Rate	0.05–10.00 Hz	Adjust the frequency (period) of modulation.
Depth	0–127	Adjust the depth of modulation.
Resonance	0–127	Adjust the amount of feedback for the phaser. The effect becomes more prominent as the value is increased.
Mix	0–127	Adjust the ratio with which the phase-shifted sound is combined with the direct sound.
Pan	L64–0–63R	Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.
Level	0–127	Adjust the output level.

90: *SPECTRUM

Spectrum is a type of filter which modifies the timbre by boosting or cutting the level at specific frequencies. It is similar to an equalizer, but has 8 frequency points fixed at locations most suitable for adding character to the sound.

	Assignable Parameters
MFX Control	Pan, Level

Parameter	Value	Description
Band1 (250Hz)	-15– +15 dB	Adjust the 250 Hz gain.
Band2 (500Hz)	-15– +15 dB	Adjust the 500 Hz gain.
Band3 (1000Hz)	-15– +15 dB	Adjust the 1000 Hz gain.
Band4 (1250Hz)	-15– +15 dB	Adjust the 1250 Hz gain.
Band5 (2000Hz)	-15– +15 dB	Adjust the 2000 Hz gain.
Band6 (3150Hz)	-15– +15 dB	Adjust the 3150 Hz gain.
Band7 (4000Hz)	-15– +15 dB	Adjust the 4000 Hz gain.
Band8 (8000Hz)	-15– +15 dB	Adjust the 8000 Hz gain.
Q	0.5, 1.0, 2.0, 4.0, 8.0	Simultaneously adjust the width of the adjusted areas for all the frequency bands.
Pan	L64–0–63R	Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.
Level	0–127	Adjust the output level.

91: *ENHANCER

The Enhancer controls the overtone structure of the high frequencies, adding sparkle and tightness to the sound.

	Assignable Parameters
MFX Control	Sens, Mix

Parameter	Value	Description
Sens	0–127	Adjust the sensitivity of the enhancer.

Parameter	Value	Description
Mix	0–127	Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Level	0–127	Adjust the output level.

92: *AUTO WAH

The Auto Wah cyclically controls a filter to create cyclic change in timbre.

	Assignable Parameters
MFX Control	Rate, Depth, Peak, Manual

Parameter	Value	Description
Filter Type	LPF, BPF	Select the type of filter. **LPF**: The wah effect will be applied over a wide frequency range. **BPF**: The wah effect will be applied over a narrow frequency range.
Rate	0.05–10.00 Hz	Adjust the frequency of the modulation.
Depth	0–127	Adjust the depth of the modulation.
Sens	0–127	Adjust the sensitivity with which the filter is controlled.
Manual	0–127	Adjust the frequency from which the effect is applied.
Peak	0–127	Adjust the amount of the wah effect that will occur in the area of the frequency. Lower settings will cause the effect to be applied in a broad area around the frequency. Higher settings will cause the effect to be applied in a more narrow range.
Level	0–127	Adjust the output level.

93: *ROTARY

The Rotary effect simulates the sound of the rotary speakers often used with the electric organs of the past. Since the movement of the high range and low range rotors can be set independently, the unique type of modulation characteristic of these speakers can be simulated quite closely. This effect is most suitable for electric organ Patches.

	Assignable Parameters
MFX Control	Speed, Hi Fast Rate, Lo Fast Rate, Separation

Parameter	Value	Description
Hi Slow Rate	0.05–10.00 Hz	Adjust the slow speed (SLOW) of the high frequency rotor.
Lo Slow Rate	0.05–10.00 Hz	Adjust the slow speed (SLOW) of the low frequency rotor.
Hi Fast Rate	0.05–10.00 Hz	Adjust the fast speed (FAST) of the high frequency rotor.
Lo Fast Rate	0.05–10.00 Hz	Adjust the fast speed (FAST) of the low frequency rotor.
Speed	SLOW, FAST	Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor. **SLOW**: Slow down the rotation to the specified speed (the Low Slow/Hi Slow values). **FAST**: Speed up the rotation to the specified speed (the Low Fast/Hi Fast values).
Hi Acceleration	0–15	Adjust the time it takes the high frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.
Lo Acceleration	0–15	Adjust the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.
High Level	0–127	Adjust the volume of the high frequency rotor.
Low Level	0–127	Adjust the volume of the low frequency rotor.
Separation	0–127	Adjust the spatial dispersion of the sound.
Level	0–127	Adjust the output level.

94: *COMPRESSOR

The Compressor flattens out high levels and boosts low levels, smoothing out unevenness in volume.

	Assignable Parameters
MFX Control	Pan, Level

Parameter	Value	Description
Sustain	0–127	Adjust the time over which low level sounds are boosted until they reach the specified volume.
Attack	0–127	Adjust the attack time of an input sound.
Pan	L64–0–63R	Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.
Post Gain	0, +6, +12, +18 dB	Adjust the output gain.
Low Gain	-15– +15 dB	Adjust the low frequency gain. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the high frequency gain. Positive (+) settings will emphasize (boost) the high frequency range.
Level	0–127	Adjust the output level.

95: *LIMITER

The Limiter compresses signals that exceed a specified volume level, preventing distortion from occurring.

	Assignable Parameters
MFX Control	Threshold, Release

Parameter	Value	Description
Threshold	0–127	Adjust the volume at which compression will begin.
Release	0–127	Adjust the time from when the volume falls below the Threshold Level until compression is no longer applied.
Ratio	1.5:1, 2:1, 4:1, 100:1	Adjust the compression ratio.

Parameter	Value	Description
Pan	L64–0–63R	Adjust the stereo location of the output sound. L64 is far left, 0 is center, and 63R is far right.
Post Gain	0, +6, +12, +18 dB	Adjust the output gain.
Low Gain	-15– +15 dB	Adjust the low frequency gain. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the high frequency gain. Positive (+) settings will emphasize (boost) the high frequency range.
Level	0–127	Adjust the output level.

96: *HEXA-CHO (HEXA-CHORUS)

Hexa-chorus uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.

	Assignable Parameters
MFX Control	Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the chorus sound is heard.
Rate	0.05–10.00 Hz	Adjust the rate of modulation.
Depth	0–127	Adjust the depth of modulation.
Pre Delay Deviat	0–20	Pre Delay determines the time from when the direct sound begins until the processed sound is heard. Pre Delay Deviation adjusts the differences in Pre Delay between each chorus sound.
Depth Deviation	-20– +20	Adjust the difference in modulation depth between each chorus sound. The shift between the start of each of the chorus sounds increases as the value is increased.
Pan Deviation	0–20	Adjust the difference in stereo location between each chorus sound. With a setting of 0, all chorus sounds will be in the center. With a setting of 20, each chorus sound will be spaced at 60 degree intervals relative to the center.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.
Level	0–127	Adjust the output level.

97: *TREMOL CHO (TREMOLO CHORUS)

Tremolo Chorus is a chorus effect with added Tremolo (cyclic modulation of volume).

	Assignable Parameters
MFX Control	Chorus Rate, Treml Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the chorus sound is heard.
Chorus Rate	0.05–10.00 Hz	Adjust the modulation speed of the chorus effect.
Chorus Depth	0–127	Adjust the modulation depth of the chorus effect.
Treml Rate	0.05–10.00 Hz	Adjust the modulation speed of the tremolo effect.
Treml Separation	0–127	Adjust the spread of the tremolo effect.
Treml Phase	0–180 degree	Adjust the spread of the tremolo effect.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the tremolo chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the tremolo chorus sound will be output.
Level	0–127	Adjust the output level.

98: *SPACE-D

Space-D is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.

	Assignable Parameters
MFX Control	Rate, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the processed sound is heard.
Rate	0.05–10.00 Hz	Adjust the rate of modulation.
Depth	0–127	Adjust the depth of modulation.
Phase	0–180 degree	Adjust the spatial spread of the sound.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.
Level	0–127	Adjust the output level.

99: *STEREO CHO (STEREO CHORUS)

This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.

	Assignable Parameters
MFX Control	Rate, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Select the type of filter. **OFF**: a filter will not be used **LPF**: cut the frequency range above the cutoff frequency **HPF**: cut the frequency range below the cutoff frequency
Cutoff Freq	200–8000 Hz	Adjust the basic frequency of the filter.
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the processed sound is heard.
Rate	0.05–10.00 Hz	Adjust the rate of modulation.
Depth	0–127	Adjust the depth of modulation.
Phase	0–180 degree	Adjust the spatial spread of the sound.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.

Parameter	Value	Description
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the chorus sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.
Level	0–127	Adjust the output level.

100: *ST.FLANGER (STEREO FLANGER)

This is a stereo flanger. (The LFO has the same phase for left and right.) It produces a metallic resonance that rises and falls like a jet airplane taking off or landing. A filter is provided so that you can adjust the timbre of the flanged sound.

	Assignable Parameters
MFX Control	Rate, Feedback, Balance

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Select the type of filter. **OFF**: a filter will not be used **LPF**: cut the frequency range above the cutoff frequency **HPF**: cut the frequency range below the cutoff frequency
Cutoff Freq	200–8000 Hz	Adjust the basic frequency of the filter.
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the flanger sound is heard.
Rate	0.05–10.00 Hz	Adjust the rate of modulation.
Depth	0–127	Adjust the depth of modulation.
Phase	0–180 degree	Adjust the spatial spread of the sound.
Feedback	-98– +98%	Adjust the proportion (%) of the processed sound that is returned (fed back) into the input. Positive (+) settings will return the sound in phase, and negative (-) settings will return the sound in reverse phase. The effect becomes more prominent as the value is increased.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the flanger sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the flanger sound will be output.
Level	0–127	Adjust the output level.

101: *STEP FLNGR (STEP FLANGER)

The Step Flanger effect is a flanger in which the flanger pitch changes in steps.

	Assignable Parameters
MFX Control	Step Rate, Feedback, Balance

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the flanger sound is heard.
Rate	0.05–10.00 Hz	Adjust the rate of modulation.
Depth	0–127	Adjust the depth of modulation.
Feedback	-98– +98%	Adjust the proportion (%) of the flanger sound that is returned (fed back) into the input. Negative (-) settings will invert the phase. The effect becomes more prominent as the value is increased.
Step Rate	0.10–20.00 Hz, note (*2)	Adjust the rate (period) of pitch change. Step Rate parameter can be set as a note-value of a tempo. In this case, specify the value of the desired note.
Phase	0–180 degree	Adjust the spatial spread of the sound.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the flanger sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the chorus sound will be output.
Level	0–127	Adjust the output level.

102: *STEREO DLY (STEREO DELAY)

	Assignable Parameters
MFX Control	Balance

Parameter	Value	Description
Feedback mode	NORMAL, CROSS	Select the way in which delay sound is fed back into the effect. **NORMAL**: The left delay sound will be fed back into the left delay, and the right delay sound into the right delay. **CROSS**: The left delay sound will be fed back into the right delay, and the right delay sound into the left delay.
Delay Left	0.1–500.0 ms	Adjust the time from the direct sound until when the left delay sound is heard.
Delay Right	0.1–500.0 ms	Adjust the time from the direct sound until when the right delay sound is heard.
Phase Left	NORMAL, INVERT	Select the phase of the left delay sound. **NORMAL**: Phase is not changed. **INVERT**: Phase is inverted.
Phase Right	NORMAL, INVERT	Select the phase of the right delay sound. **NORMAL**: Phase is not changed. **INVERT**: Phase is inverted.
Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.

Parameter	Value	Description
HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.
Level	0–127	Adjust the output level.

103: *MOD DELAY (MODULATION DELAY)

This effect adds modulation to the delayed sound, producing an effect similar to a flanger.

	Assignable Parameters
MFX Control	Rate, Balance

Parameter	Value	Description
Feedback mode	NORMAL, CROSS	Select the way in which delay sound is fed back into the effect. **NORMAL**: The left delay sound will be fed back into the left delay, and the right delay sound into the right delay. **CROSS**: The left delay sound will be fed back into the right delay, and the right delay sound into the left delay.
Delay Left	0.1–500.0 ms	Adjust the time from the direct sound until when the left delay sound is heard.
Delay Right	0.1–500.0 ms	Adjust the time from the direct sound until when the right delay sound is heard.
Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Rate	0.05–10.00 Hz	Adjust the speed of the modulation.
Depth	0–127	Adjust the depth of the modulation.
Phase	0–180 degree	Adjust the spatial spread of the sound.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the modulation delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the modulation delay sound will be output.
Level	0–127	Adjust the output level.

104: *TRIPLE DLY (TRIPLE TAP DELAY)

The Triple Tap Delay produces three delay sounds; center, left and right.

	Assignable Parameters
MFX Control	Balance

Parameter	Value	Description
Dly Left	200–1000 ms, note (*2)	Adjust the time delay from the direct sound until when the left delay sound is heard.
Dly Right	200–1000 ms, note (*2)	Adjust the time delay from the direct sound until when the right delay sound is heard.
Dly Center	200–1000 ms, note (*2)	Adjust the time delay from the direct sound until when the center delay sound is heard.
Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Left Level	0–127	Adjust the volume of the left delay sound.
Right Level	0–127	Adjust the volume of the right delay sound.
Center Level	0–127	Adjust the volume of the center delay sound.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.
Level	0–127	Adjust the output level.

Delay C, Delay L and Delay R parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

105: *QUAD.DELAY (QUADRUPLE TAP DELAY)

The Quadruple Tap Delay has four delays.

The stereo location of each delay sound is as follows.

	Assignable Parameters
MFX Control	Balance

Parameter	Value	Description
Dly1 Time	200–1000 ms, note	Adjust the time delay from the direct sound until when delay 1 sound is heard.
Dly2 Time	200–1000 ms, note	Adjust the time delay from the direct sound until when delay 2 sound is heard.

Parameter	Value	Description
Dly3 Time	200–1000 ms, note	Adjust the time delay from the direct sound until when delay 3 sound is heard.
Dly4 Time	200–1000 ms, note	Adjust the time delay from the direct sound until when delay 4 sound is heard.
Level 1	0–127	Adjust the volume of delay 1 sound.
Level 2	0–127	Adjust the volume of delay 2 sound.
Level 3	0–127	Adjust the volume of delay 3 sound.
Level 4	0–127	Adjust the volume of delay 4 sound.
Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.
Level	0–127	Adjust the output level.

Delay 1–4 parameters can be set as a note-value of a tempo. In this case, specify the value of the desired note.

106: *T-CTRL DLY (TIME CONTROL DELAY)

When the Effects MFX Control (p. 87) setting in Edit mode set to "Delay," you can use MULTI EFFECTS [CONTROL] knob to make changes in the delay time and pitch in real time.
Lengthening the delay will lower the pitch, and shortening it will raise the pitch.

	Assignable Parameters
MFX Control	Delay, Balance

Parameter	Value	Description
Delay	200–1000 ms	Adjust the time delay from the direct sound until when each delay sound is heard.
Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Acceleration	0–15	This parameter adjusts the time over which the Delay Time will change from the current setting to a newly specified setting. The rate of change for the Delay Time directly affects the rate of pitch change.
HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Pan	L64–0–63R	Adjust the stereo location of the delay sound. L64 is far left, 0 is center, and 63R is far right.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the delay sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the delay sound will be output.
Level	0–127	Adjust the output level.

107: *2V PCH SFT (2 VOICE PITCH SHIFTER)

A Pitch Shifter shifts the pitch of the direct sound. This 2-voice pitch shifter has two pitch shifters, and can add two pitch shifted sounds to the direct sound.

	Assignable Parameters
MFX Control	Balance, Coarse A, Coarse B

Parameter	Value	Description
Mode	1, 2, 3, 4, 5	Higher settings of this parameter will result in slower response, but steadier pitch.
Coarse A	-24– +12 semitone	Adjust the pitch of Pitch Shift A in semitone steps (-2–+1 octaves).
Coarse B	-24– +12 semitone	Adjust the pitch of Pitch Shift B in semitone steps (-2–+1 octaves).
Fine A	-100– +100 cent	Make fine adjustments to the pitch of Pitch Shift A in 2-cent steps (-100–+100 cents). One cent is 1/100th of a semitone.
Fine B	-100– +100 cent	Make fine adjustments to the pitch of Pitch Shift B in 2-cent steps (-100–+100 cents). One cent is 1/100th of a semitone.
Pre Delay A	0.0–500.0 ms	Adjust the time delay from when the direct sound begins until the Pitch Shift A sound is heard.
Pre Delay B	0.0–500.0 ms	Adjust the time delay from when the direct sound begins until the Pitch Shift A sound is heard.
Pan A	L64–0–63R	Adjust the stereo location of the Pitch Shift A sound. L64 is far left, 0 is center, and 63R is far right.
Pan B	L64–0–63R	Adjust the stereo location of the Pitch Shift B sound. L64 is far left, 0 is center, and 63R is far right.
Level Bal	A100:0B–A0:100B	Adjust the volume balance between the Pitch Shift A and Pitch Shift B sounds. When set to A100:0B, only the sound of Pitch Shift A is output; when set to A0:100B, only the sound of Pitch Shift B is output.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the pitch shift sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the pitch shift sound will be output.
Level	0–127	Adjust the output level.

108: *FBK P.SFT (FEEDBACK PITCH SHIFTER)

This pitch shifter allows the pitch shifted sound to be fed back into the effect.

	Assignable Parameters
MFX Control	Balance, Coarse, Feedback

Parameter	Value	Description
Mode	1, 2, 3, 4, 5	Higher settings of this parameter will result in slower response, but steadier pitch.
Coarse	-24– +12 semitone	Adjust the pitch of the pitch shifted sound in semitone steps (-2–+1 octaves).
Fine	-100– +100 cent	Make fine adjustments to the pitch of the pitch shifted sound in 2-cent steps (one cent is 1/100th of a semi tone).
Pre Delay	0.0–500.0 ms	Adjust the time delay from when the direct sound begins until the pitch shifted sound is heard.
Feedback	-98– +98%	Adjust the proportion (%) of the processed sound that is fed back into the effect. Negative (-) settings will invert the phase.
Pan	L64–0–63R	Adjust the stereo location of the pitch shifted sound. L64 is far left, 0 is center, and 63R is far right.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the pitch shift sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the pitch shift sound will be output.
Level	0–127	Adjust the output level.

109: *REVERB

The Reverb effect adds reverberation to the sound, simulating an acoustic space.

	Assignable Parameters
MFX Control	Time, Type, Balance

Parameter	Value	Description
Type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2	Select the type of Reverb effect. **ROOM1**: dense reverb with short decay **ROOM2**: sparse reverb with short decay **STAGE1**: reverb with greater late reverberation **STAGE2**: reverb with strong early reflections **HALL1**: reverb with clear reverberance **HALL2**: reverb with rich reverberance
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the reverb sound is heard.
Time	0–127	Adjust the time length of reverberation.
HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which the reverberant sound will be cut. As the frequency is set lower, more of the high frequencies will be cut, resulting in a softer and more muted reverberance. If you do not want the high frequencies to be cut, set this parameter to BYPASS.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the reverb sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the reverb sound will be output.
Level	0–127	Adjust the output level.

110: *GATE REV (GATED REVERB)

Gate Reverb is a special type of reverb in which the reverberant sound is cut off before its natural length.

	Assignable Parameters
MFX Control	Balance

Parameter	Value	Description
Type	NORMAL, REVERSE, SWEEP1, SWEEP2	Select the type of reverb. **NORMAL**: conventional gate reverb **REVERSE**: backwards reverb **SWEEP1**: the reverberant sound moves from right to left **SWEEP2**: the reverberant sound moves from left to right
Pre Delay	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the reverb sound is heard.
Time	5–500 ms	Adjust the time from when the reverb is heard until when it disappears.
Low Gain	-15– +15 dB	Adjust the gain of the low frequency range. Positive (+) settings will emphasize (boost) the low frequency range.
High Gain	-15– +15 dB	Adjust the gain of the high frequency range. Positive (+) settings will emphasize (boost) the high frequency range.
Balance	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the reverb sound. With a setting of D100:0W only the direct sound will be output, and with a setting of D0:100W only the reverb sound will be output.
Level	0–127	Adjust the output level.

111: *OVDRV→CHO (OVERDRIVE→CHORUS)

This effect connects an overdrive and a chorus in series.

	Assignable Parameters
MFX Control	Chorus Bal, Chorus Rate, OD Drive

Parameter	Value	Description
OD Drive	0–127	Adjust the degree of overdrive distortion. The volume will change together with the degree of distortion.
OD Pan	L64–0–63R	Adjust the stereo location of the overdrive sound. L64 is far left, 0 is center, and 63R is far right.
Chorus PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the chorus sound is heard.
Chorus Rate	0.05–10.00 Hz	Adjust the modulation speed of the chorus effect.
Chorus Depth	0–127	Adjust the modulation depth of the chorus effect.
Chorus Bal	D100:0W–D0:100W	Adjust the volume balance between the overdrive sound that is sent through the chorus and the overdrive sound that is not sent through the chorus. With a setting of "D100:0W," only the overdrive sound will be output. With a setting of "D0:100W," only the overdrive sound that is sent through the chorus will be output.
Level	0–127	Adjust the output level.

112: *OVDRV→FLN (OVERDRIVE→FLANGER)

This effect connects an overdrive and a flanger in series.

	Assignable Parameters
MFX Control	Flngr Bal, Flngr Rate, OD Drive

Parameter	Value	Description
OD Drive	0–127	Adjust the degree of overdrive distortion. The volume will change together with the degree of distortion.
OD Pan	L64–0–63R	Adjust the stereo location of the overdrive sound. L64 is far left, 0 is center, and 63R is far right.
Flngr PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the flanger sound is heard.
Flngr Rate	0.05–10.00 Hz	Adjust the modulation speed of the flanger effect.
Flngr Depth	0–127	Adjust the modulation depth of the flanger effect.
Flngr Fbk	-98– +98%	Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjust the volume balance between the overdrive sound that is sent through the flanger and the overdrive sound that is not sent through the flanger. With a setting of "D100:0W," only the overdrive sound will be output. With a setting of "D0:100W," only the overdrive sound that is sent through the flanger will be output.
Level	0–127	Adjust the output level.

113: *OVDRV→DLY (OVERDRIVE→DELAY)

This effect connects an overdrive and a delay in series.

	Assignable Parameters
MFX Control	Delay Bal, OD Drive

Parameter	Value	Description
OD Drive	0–127	Adjust the degree of overdrive distortion. The volume will change together with the degree of distortion.
OD Pan	L64–0–63R	Adjust the stereo location of the overdrive sound. L64 is far left, 0 is center, and 63R is far right.
Delay Time	0.1–500.0 ms	Adjust the time delay from when the direct sound begins until the delay sound is heard.
Delay Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which delayed sound fed back to the effect will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjust the volume balance between the overdrive sound that is sent through the delay and the overdrive sound that is not sent through the delay. With a setting of "D100:0W," only the overdrive sound will be output. With a setting of "D0:100W," only the overdrive sound that is sent through the delay will be output.
Level	0–127	Adjust the output level.

114: *DIST→CHO (DISTORTION→CHORUS)

This effect connects distortion and chorus in series. The parameters are essentially the same as "111: OD→CHORUS," with the exception of the following two.

OD Drive → Dst Drive (Specify the amount of distortion.)

OD Pan → Dist Pan (Specify the stereo location of the distortion sound.)

115: *DIST→FLNGR (DISTORTION→FLANGER)

This effect connects distortion and flanger in series. The parameters are essentially the same as in "112: OD→FLANGER," with the exception of the following two.

OD Drive → Dst Drive (Specify the amount of distortion.)

OD Pan → Dist Pan (Specify the stereo location of the distortion sound.)

116: *DIST→DELAY (DISTORTION→DELAY)

This effect connects distortion and delay in series. The parameters are essentially the same as in "113: OD→DELAY," with the exception of the following two.

OD Drive →Dst Drive (Specify the amount of distortion.)

OD Pan →Dist Pan (Specify the stereo location of the distortion sound.)

117: *ENH→CHORUS (ENHANCER→CHORUS)

This effect connects an enhancer and a chorus in series.

	Assignable Parameters
MFX Control	Chorus Bal, Chorus Rate, Enhancer Sens

Parameter	Value	Description
Enhancer Sens	0–127	Adjust the sensitivity of the enhancer.
Enhancer Mix	0–127	Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.
Chorus PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the chorus sound is heard.
Chorus Rate	0.05–10.00 Hz	Adjust the modulation speed of the chorus effect.
Chorus Depth	0–127	Adjust the modulation depth of the chorus effect.
Chorus Bal	D100:0W–D0:100W	Adjust the volume balance between the enhancer sound that is sent through the chorus and the enhancer sound that is not sent through the chorus. With a setting of "D100:0W," only the enhancer sound will be output. With a setting of "D0:100W," only the enhancer sound that is sent through the chorus will be output.
Level	0–127	Adjust the output level.

118: *ENH→FLANGR (ENHANCER→CHORUS)

This effect connects an enhancer and a flanger in series.

	Assignable Parameters
MFX Control	Flngr Bal, Flngr Rate, Enhancer Sens

Parameter	Value	Description
Enhancer Sens	0–127	Adjust the sensitivity of the enhancer.
Enhancer Mix	0–127	Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.
Flngr PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the flanger sound is heard.
Flngr Rate	0.05–10.00 Hz	Adjust the modulation speed of the flanger effect.
Flngr Depth	0–127	Adjust the modulation depth of the flanger effect.
Flngr Fbk	-98– +98%	Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjust the volume balance between the enhancer sound that is sent through the flanger and the enhancer sound that is not sent through the flanger. With a setting of "D100:0W," only the enhancer sound will be output. With a setting of "D0:100W," only the enhancer sound that is sent through the flanger will be output.
Level	0–127	Adjust the output level.

119: *ENH→DELAY (ENHANCER→DELAY)

This effect connects an enhancer and a delay in series.

	Assignable Parameters
MFX Control	Delay Bal, Enhancer Sens

Parameter	Value	Description
Enhancer Sens	0–127	Adjust the sensitivity of the enhancer.
Enhancer Mix	0–127	Adjust the ratio with which the overtones generated by the enhancer are combined with the direct sound.
Delay Time	0.1–500.0 ms	Adjust the time delay from when the direct sound begins until the delay sound is heard.
Delay Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the delay input. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which delayed sound fed back to the delay input will be cut. If you do not want to cut the high frequencies of the delay feedback, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjust the volume balance between the enhancer sound that is sent through the delay and the enhancer sound that is not sent through the delay. With a setting of "D100:0W," only the enhancer sound will be output. With a setting of "D0:100W," only the enhancer sound that is sent through the delay will be output.
Level	0–127	Adjust the output level.

120: *CHO→DELAY (CHORUS→DELAY)

This effect connects a chorus and a delay unit in series.

	Assignable Parameters
MFX Control	Chorus Bal, Delay Bal

Parameter	Value	Description
Chorus PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the chorus sound is heard.
Chorus Rate	0.05–10.00 Hz	Adjust the modulation speed of the chorus effect.
Chorus Depth	0–127	Adjust the modulation depth of the chorus effect.
Chorus Bal	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the chorus sound. With a setting of "D100:0W," only the direct sound will be output. With a setting of "D0:100W," only the chorus sound will be output.
Delay Time	0.1–500.0 ms	Adjust the time delay from when the direct sound begins until the delay sound is heard.
Delay Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the delay input. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which delayed sound fed back to the delay input will be cut. If you do not want to cut the high frequencies of the feedback, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjust the volume balance between the chorus sound that is sent through the delay and the chorus sound that is not sent through the delay. With a setting of "D100:0W," only the chorus sound will be output. With a setting of "D0:100W," only the chorus sound that is sent through the delay will be output.
Level	0–127	Adjust the output level.

121: *FLANGR→DLY (FLANGER→DELAY)

This effect connects a flanger and a delay in series.

	Assignable Parameters
MFX Control	Flngr Bal, Delay Bal

Parameter	Value	Description
Flngr PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the flanger sound is heard.
Flngr Rate	0.05–10.00 Hz	Adjust the modulation speed of the flanger effect.
Flngr Depth	0–127	Adjust the modulation depth of the flanger effect.
Flngr Fbk	-98– +98%	Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the flanger sound. With a setting of "D100:0W," only the direct sound will be output. With a setting of "D0:100W," only the flanger sound will be output.
Delay Time	0.1–500.0 ms	Adjust the time delay from when the direct sound begins until the delay sound is heard.
Delay Feedback	-98– +98%	Adjust the proportion (%) of the delay sound that is fed back into the delay input. Negative (-) settings will invert the phase.
Delay HF Damp	200–8000 Hz, BYPASS	Adjust the frequency above which delayed sound fed back to the delay input will be cut. If you do not want to cut the high frequencies of the delay feedback, set this parameter to BYPASS.
Delay Bal	D100:0W–D0:100W	Adjust the volume balance between the flanger sound that is sent through the delay and the flanger sound that is not sent through the delay. With a setting of "D100:0W," only the flanger sound will be output. With a setting of "D0:100W," only the flanger sound that is sent through the delay will be output.
Level	0–127	Adjust the output level.

122: *CHO→FLANGR (CHORUS→FLANGER)

This effect connects a chorus and a flanger in series.

	Assignable Parameters
MFX Control	Chorus Bal, Flngr Bal, Chorus Rate, Flngr Rate

Parameter	Value	Description
Chorus PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the chorus sound is heard.
Chorus Rate	0.05–10.00 Hz	Adjust the modulation speed of the chorus effect.
Chorus Depth	0–127	Adjust the modulation depth of the chorus effect.
Chorus Bal	D100:0W–D0:100W	Adjust the volume balance between the direct sound and the chorus sound. With a setting of "D100:0W," only the direct sound will be output. With a setting of "D0:100W," only the chorus sound will be output.
Flngr PreDly	0.0–100.0 ms	Adjust the time delay from when the direct sound begins until the flanger sound is heard.
Flngr Rate	0.05–10.00 Hz	Adjust the modulation speed of the flanger effect.
Flngr Depth	0–127	Adjust the modulation depth of the flanger effect.
Flngr Fbk	-98– +98%	Adjust the proportion (%) of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flngr Bal	D100:0W–D0:100W	Adjust the volume balance between the chorus sound and the chorus sound that is passed through the flanger. With a setting of "D100:0W," only the chorus sound will be output. With a setting of "D0:100W," only the chorus sound that passes through the flanger will be output.
Level	0–127	Adjust the output level.

123: *CHORUS/DLY (CHORUS/DELAY)

This effect connects a chorus and a delay in parallel.

	Assignable Parameters
MFX Control	Chorus Bal, Delay Bal, Chorus Rate

The parameters are the same as for "120: CHORUS→DELAY." However, the parameter adjusts the volume balance between the direct sound and the delay sound.

124: *FLANGR/DLY (FLANGER/DELAY)

This effect connects a flanger and a delay in parallel.

	Assignable Parameters
MFX Control	Flngr Bal, Delay Bal, Flngr Rate

The parameters are the same as for "121: FLANGER→DELAY." However, the Delay Bal parameter adjusts the volume balance between the direct sound and the delay sound.

125: *CHO/FLNGR (CHORUS/FLANGER)

This effect connects a chorus and a flanger in parallel. The parameters are the same as for "122: CHORUS→FLANGER." However, the Flg Bal parameter adjusts the volume balance between the direct sound and the flanger sound.

note (1):

(Sixty-fourth-note triplet), (Sixty-fourth note), (Thirty-second-note triplet), (Thirty-second note), (Sixteenth-note triplet), (Dotted thirty-second note), (Sixteenth note), (Eighth-note triplet), (Dotted sixteenth note), (Eighth note), (Quarter-note triplet), (Dotted eighth note), (Quarter note), (Half-note triplet), (Dotted quarter note), (Half note), (Whole-note triplet), (Dotted half note), (Whole note), (Double-note triplet), (Dotted whole note), (Double note)

note (2):

(Sixteenth note), (Eighth-note triplet), (Dotted sixteenth note), (Eighth note), (Half-note triplet), (Dotted eighth note), (Quarter note), (Half-note triplet), (Dotted quarter note), (Half note),

Chorus Parameter

The RD-700SX's Chorus effect unit can also be used as a stereo delay unit.

0: OFF

Neither Chorus or Delay is used.

1: CHORUS

Parameter	Value	Description
Filter Type	OFF, LPF, HPF	Type of filter **OFF**: no filter is used **LPF**: cuts the frequency range above the Cutoff Freq **HPF**: cuts the frequency range below the Cutoff Freq
Cutoff Freq	200–8000 Hz	Basic frequency of the filter
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate Mode	Hz, note	When this is set to "note," the effect is synchronized with the tempo.
Rate (Hz)	0.05–10.00 Hz	Frequency of modulation (Hz)
Rate (♪)	note (*)	Frequency of modulation (note)
Depth	0–127	Depth of modulation
Phase	0–180 deg	Spatial spread of the sound
Feedback	0–127	Adjusts the amount of the chorus sound that is fed back into the effect.

2: DELAY

Parameter	Value	Description
Delay L Mode	ms, note	When this is set to "note," the effect is synchronized with the tempo.
Delay L (ms)	0–1000 ms	Adjusts the time until the delay sound is heard. (Hz)
Delay L (♪)	note (*)	Adjusts the time until the delay sound is heard. (note)
Delay R Mode	ms, note	Settings of the Delay R The parameters are the same as for the Delay L.
Delay R (ms)	0–1000 ms	
Delay R (♪)	note (*)	
Delay C Mode	ms, note	Settings of the Delay C The parameters are the same as for the Delay L.
Delay C (ms)	0–1000 ms	
Delay C (♪)	note (*)	
Center Feedbak	-98–+98 %	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Left Level	0–127	Volume of each delay sound
Right Level	0–127	Volume of each delay sound
Center Level	0–127	Volume of each delay sound

3: GM2 CHORUS

Parameter	Value	Description
Pre-LPF	0–7	Cuts the high frequency range of the sound coming into the chorus. Higher values will cut more of the high frequencies.
Level	0–127	Volume of the chorus sound
Feedback	0–127	Adjusts the amount of the chorus sound that is fed back into the effect.
Delay	0–127	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate	0–127	Frequency of modulation
Depth	0–127	Depth of modulation
Send To Reverb	0–127	Adjusts the amount of chorus sound that will be sent to the reverb.

note (*):

(Sixty-fourth-note triplet), (Sixty-fourth note), (Thirty-second-note triplet),

(Thirty-second note), (Sixteenth-note triplet), (Dotted thirty-second note),

(Sixteenth note), (Eighth-note triplet), (Dotted sixteenth note),

(Eighth note), (Quarter-note triplet), (Dotted eighth note),

(Quarter note), (Half-note triplet), (Dotted quarter note), (Half note),

(Whole-note triplet), (Dotted half note), (Whole note),

(Double-note triplet), (Dotted whole note), (Double note)

Reverb Parameter

These settings allow you to select the desired type of reverb, and its characteristics.

0: OFF

Reverb is not used.

1: REVERB

Normal reverb

Parameter	Value	Description
Type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2, DELAY, PAN-DELAY	Type of reverb/delay **ROOM1**: short reverb with high density **ROOM2**: short reverb with low density **STAGE1**: reverb with greater late reverberation **STAGE2**: reverb with strong early reflections **HALL1**: very clear-sounding reverb **HALL2**: rich reverb **DELAY**: conventional delay effect **PAN-DELAY**: delay effect with echoes that pan left and right
Time	0–127	Time length of reverberation (Type: ROOM1-HALL2) Delay time (Type: DELAY, PAN-DELAY)
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which the high-frequency content of the reverb sound will be cut, or "damped." If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Feedback	0–127	Adjusts the amount of delay feedback when the Type setting is DELAY or PAN-DELAY.

2: SRV ROOM

This simulates typical room acoustic reflections.

Parameter	Value	Description
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time	0–127	Time length of reverberation
Size	1–8	Size of the simulated room or hall
High Cut	160 Hz–12.5 kHz, BYPASS	Adjusts the frequency above which the high-frequency content of the reverb will be reduced. If you do not want to reduce the high frequencies, set this parameter to BYPASS.
Density	0–127	Density of reverb
Diffusion	0–127	Adjusts the change in the density of the reverb over time. The higher the value, the more the density increases with time. (The effect of this setting is most pronounced with long reverb times.)
LF Damp Freq	50–4000 Hz	Adjusts the frequency below which the low-frequency content of the reverb sound will be reduced, or "damped."
LF Damp Gain	-36–0 dB	Adjusts the amount of damping applied to the frequency range selected with LF Damp. With a setting of "0," there will be no reduction of the reverb's low-frequency content.
HF DampFreq	4000 Hz–12.5 kHz	Adjusts the frequency above which the high-frequency content of the reverb sound will be reduced, or "damped."
HF Damp Gain	-36–0 dB	Adjusts the amount of damping applied to the frequency range selected with HF Damp. With a setting of "0," there will be no reduction of the reverb's high-frequency content.

3: SRV HALL

This simulates typical concert hall acoustic reflections.
The parameters are the same as for "2: SRV_ROOM."

4: SRV PLATE

This simulates a reverb plate, a popular type of artificial reverb unit that derives its sound from the vibration of a metallic plate.
The parameters are the same as for "2: SRV_ROOM."

5: GM2 REVERB

GM2 Reverb

Parameter	Value	Description
Character	0–7	Type of reverb **0–5**: reverb **6, 7**: delay
Pre-LPF	0–7	Cuts the high frequency range of the sound coming into the reverb. Higher values will cut more of the high frequencies.
Level	0–127	Output level of reverberation
Time	0–127	Time length of reverberation
Delay Feedback	0–127	Adjusts the amount of the delay sound that is fed back into the effect when the Reverb Character setting is 6 or 7.

6: CATHEDRAL

Simulates the type of reverberation in churches and other such spaces bounded by hard walls

Parameter	Value	Description
Pre-LPF	0–7	Cuts the high frequency range of the sound coming into the reverb. Higher values will cut more of the high frequencies.
Level	0–127	Output level of reverberation
Time	0–127	Time length of reverberation

Tone List

MSB: Bank Select MSB (Control Number: 0)

LSB: Bank Select LSB (Control Number: 32)

PC: Program Change

[PIANO]

No.	Tone Name	MSB	LSB	PC
1	Superior Grd	87	64	1
2	X-Ultimate	87	64	2
3	Grand RD	87	64	3
4	Dark Ballad	87	64	4
5	X-Pure Grand	87	64	5
6	Mellow Piano	87	64	6
7	Bright Grand	87	64	7
8	X-PureMellow	87	64	8
9	Superior Str	87	64	9
10	Superior Pd1	87	64	10
11	Superior Pd2	87	64	11
12	Hybrid Grd 1	87	64	12
13	Hybrid Grd 2	87	64	13
14	600 Grand	87	64	14
15	Dynamic Grd	87	64	15
16	Rock Piano 1	87	64	16
17	Rock Piano 2	87	64	17
18	Honky-tonk	87	64	18
19	SuperiorMono	87	64	19
20	GrandRD Mono	87	64	20

[E.PIANO]

No.	Tone Name	MSB	LSB	PC
21	SX E.Piano 1	87	65	1
22	Stage Phazer	87	65	2
23	Hit EP	87	65	3
24	60′sE.Piano1	87	65	4
25	60′sE.Piano2	87	65	5
26	Phaser EP	87	65	6
27	StageCabinet	87	65	7
28	NY E.Piano	87	65	8
29	SX E.Piano 2	87	65	9
30	FM E.Piano	87	65	10
31	60′sE.Piano3	87	65	11
32	70′s E.Piano	87	65	12
33	Psycho EP	87	65	13
34	EP Belle	87	65	14
35	D-50 E.Piano	87	65	15
36	Pro Stage	87	65	16
37	Vintage EP 1	87	65	17
38	Vintage EP 2	87	65	18
39	S.A.E.P.	87	65	19
40	Hard 60′s EP	87	65	20
41	E.Grand	87	65	21

[CLAV/MALLET]

No.	Tone Name	MSB	LSB	PC
42	Funky D	87	66	1
43	SX Clavi	87	66	2
44	Clav 1	87	66	3
45	Clav 2	87	66	4
46	Phase Clav	87	66	5
47	WahWah Clav	87	66	6
48	Cutter Clavi	87	66	7
49	D6 Clavi	87	66	8
50	Natural Hps.	87	66	9
51	Harpsi+Str	87	66	10
52	NaturalC.Hps	87	66	11
53	St.Harpsichd	87	66	12
54	Celesta	87	66	13
55	Vibrations	87	66	14
56	Vibraphone	87	66	15
57	Marimba	87	66	16
58	Morning Lite	87	66	17
59	Ballad Bells	87	66	18
60	Chime Bells	87	66	19
61	MusicBox Pad	87	66	20
62	Islands Mlt	87	66	21

[ORGAN]

No.	Tone Name	MSB	LSB	PC
63	TW-Organ 1	112	0	1
64	TW-Organ 2	112	0	2
65	TW-Organ 3	112	0	3
66	TW-Organ 4	112	0	4
67	TW-Organ 5	112	0	5
68	TW-Organ 6	112	0	6
69	TW-Organ 7	112	0	7
70	TW-Organ 8	112	0	8
71	TW-Organ 9	112	0	9
72	TW-Organ 10	112	0	10
73	X Perc Organ	87	67	1
74	Rock Organ	87	67	2
75	Zepix Organ	87	67	3
76	Gospel Spin	87	67	4
77	Mellow Bars	87	67	5
78	Perc.Organ 1	87	67	6
79	FullDraw Org	87	67	7
80	Full Stops	87	67	8
81	British B	87	67	9
82	Perc.Organ 2	87	67	10
83	Perc. B	87	67	11
84	60′s Organ	87	67	12
85	Surf′s Up!	87	67	13
86	R&B Organ	87	67	14
87	Rocker Spin	87	67	15
88	Purple Spin	87	67	16
89	Massive Pipe	87	67	17
90	Mid Pipe Org	87	67	18
91	Theater Org	87	67	19
92	ParisRomance	87	67	20

[STRINGS]

No.	Tone Name	MSB	LSB	PC
93	SX Strings 1	87	68	1
94	Studio Sect.	87	68	2
95	Staccato VS	87	68	3
96	Full Strings	87	68	4
97	SX Strings 2	87	68	5
98	Warm Strings	87	68	6
99	X StrSection	87	68	7
100	2-way Sect.	87	68	8
101	Stringz 101	87	68	9
102	Biggie Bows	87	68	10
103	OrchestraPad	87	68	11
104	Orch & Horns	87	68	12
105	Soft Orch	87	68	13
106	ChmbrStrings	87	68	14
107	Ending Scene	87	68	15
108	Str Quartet	87	68	16
109	Pizzicato	87	68	17
110	Machine Str	87	68	18
111	JP Strings 1	87	68	19
112	JP Strings 2	87	68	20
113	SynthStrings	87	68	21
114	OB Slow Str	87	68	22

[PAD]

No.	Tone Name	MSB	LSB	PC
115	Soft Pad	87	69	1
116	Silky Way	87	69	2
117	Lunar Strngs	87	69	3
118	Nu Epic Pad	87	69	4
119	Strings Pad	87	69	5
120	Mashy Scene	87	69	6
121	Side Band X	87	69	7
122	R&B SoftPad	87	69	8
123	Glass Organ	87	69	9
124	Evolution X	87	69	10
125	Whisper Pad	87	69	11
126	Combination	87	69	12
127	HumanKindnes	87	69	13
128	StellarTreck	87	69	14
129	Jupiter-X	87	69	15
130	Mash Pad	87	69	16
131	InfinitePhsr	87	69	17
132	Flange Dream	87	69	18
133	Morph Filter	87	69	19
134	Jupiter 2005	87	69	20

[GTR/BASS]

No.	Tone Name	MSB	LSB	PC
135	NaturalNylon	87	70	1
136	Dyna Nylon	87	70	2
137	Nylon Guitar	87	70	3
138	Steel Gtr	87	70	4
139	Steel Away	87	70	5
140	12str Gtr	87	70	6
141	Jz Gtr Hall	87	70	7
142	Clear Guitar	87	70	8
143	JC Strat	87	70	9
144	DistGt Mt	87	70	10
145	Blusey OD	87	70	11
146	Touch Drive	87	70	12
147	Punker	87	70	13
148	SX Ac.Bass	87	70	14
149	SX Upright	87	70	15
150	FingerMaster	87	70	16
151	Chorus Bass	87	70	17
152	Pick Bass	87	70	18
153	Slap Bass	87	70	19
154	SX Fretnot	87	70	20
155	RichFretless	87	70	21
156	All Round Bs	87	70	22
157	Return2Base!	87	70	23
158	Rubber Bass	87	70	24
159	Virtual RnBs	87	70	25
160	Punch MG	87	70	26
161	Garage Bass	87	70	27
162	Smooth Bass	87	70	28
163	MG Bass	87	70	29
164	101 Bass	87	70	30
165	Poly Bass	87	70	31
166	Synth Bass	87	70	32
167	Gashed Bass	87	70	33
168	Vox Bass	87	70	34
169	Bass+RideCym	87	70	35
170	Pearly Harp	87	70	36
171	Sitar 1	87	70	37
172	Sitar 2	87	70	38

[BRASS/WINDS]

No.	Tone Name	MSB	LSB	PC
173	R&R Brass	87	71	1
174	VoyagerBrass	87	71	2
175	StackTp Sect	87	71	3
176	Oct Brass	87	71	4
177	FullSt Brass	87	71	5
178	Wood Symphny	87	71	6
179	Bigband Sax	87	71	7
180	Biggie Brass	87	71	8
181	ChamberWinds	87	71	9
182	Soprano Sax	87	71	10
183	Alto Sax	87	71	11
184	Tenor Sax	87	71	12
185	Honker Bari	87	71	13
186	Flute	87	71	14
187	Oboe	87	71	15
188	Pan Pipes	87	71	16
189	Bend SynBrs	87	71	17
190	Saw Brass	87	71	18
191	Jump For KY	87	71	19
192	X-Saw Brass	87	71	20
193	JP8000 Brass	87	71	21
194	Silky JP	87	71	22
195	Afro Horns	87	71	23
196	Triumph Brs	87	71	24

[VOICE/SYNTH]

No.	Tone Name	MSB	LSB	PC
197	Jazz Scat	87	72	1
198	Morning Star	87	72	2
199	Aerial Choir	87	72	3
200	Angelique	87	72	4
201	Aah Vox	87	72	5
202	Beauty Vox	87	72	6
203	Choir Aahs	87	72	7
204	Jazz Doos	87	72	8
205	Female Aahs	87	72	9
206	Gospel Oohs	87	72	10
207	Galactic SX	87	72	11
208	Synth Stack	87	72	12
209	Power Stack	87	72	13
210	Oct Unison	87	72	14
211	Trancy Synth	87	72	15
212	SideBandBell	87	72	16
213	Saw Lead 1	87	72	17
214	Saw Lead 2	87	72	18
215	Square Lead	87	72	19
216	Sweep Lead	87	72	20
217	SuperSawSlow	87	72	21
218	Jupiter Lead	87	72	22

[RHY/GM2]

No.	Tone Name	MSB	LSB	PC
219	SX Pop Kit	86	64	1
220	SX Rock Kit	86	64	2
221	SX Jazz Kit	86	64	3
222	SX R&B Kit	86	64	4
223	SX House Kit	86	64	5
224	GM2 STANDARD	120	0	1
225	GM2 ROOM	120	0	9
226	GM2 POWER	120	0	17
227	GM2 ELECTRIC	120	0	25
228	GM2 ANALOG	120	0	26
229	GM2 JAZZ	120	0	33
230	GM2 BRUSH	120	0	41
231	GM2 ORCHSTRA	120	0	49
232	GM2 SFX	120	0	57
233	Piano 1	121	0	1
234	Piano 1w	121	1	1
235	European Pf	121	2	1
236	Piano 2	121	0	2
237	Piano 2w	121	1	2
238	Piano 3	121	0	3
239	Piano 3w	121	1	3
240	Honky-tonk	121	0	4
241	Honky-tonk 2	121	1	4
242	E.Piano 1	121	0	5
243	St.Soft EP	121	1	5
244	FM+SA EP	121	2	5
245	60′s E.Piano	121	3	5
246	E.Piano 2	121	0	6
247	Detuned EP 2	121	1	6
248	St.FM EP	121	2	6
249	EP Legend	121	3	6
250	EP Phase	121	4	6
251	Harpsichord	121	0	7
252	Coupled Hps.	121	1	7
253	Harpsi.w	121	2	7
254	Harpsi.o	121	3	7
255	Clav.	121	0	8
256	Pulse Clav	121	1	8
257	Celesta	121	0	9
258	Glockenspiel	121	0	10
259	Music Box	121	0	11
260	Vibraphone	121	0	12
261	Vibraphone w	121	1	12
262	Marimba	121	0	13
263	Marimba w	121	1	13
264	Xylophone	121	0	14
265	Tubular-bell	121	0	15
266	Church Bell	121	1	15
267	Carillon	121	2	15
268	Santur	121	0	16
269	Organ 1	121	0	17
270	Trem. Organ	121	1	17
271	60′s Organ 1	121	2	17
272	70′s E.Organ	121	3	17
273	Organ 2	121	0	18
274	Chorus Or.2	121	1	18
275	Perc. Organ	121	2	18
276	Organ 3	121	0	19
277	Church Org.1	121	0	20
278	Church Org.2	121	1	20
279	Church Org.3	121	2	20
280	Reed Organ	121	0	21
281	Puff Organ	121	1	21
282	Accordion Fr	121	0	22
283	Accordion It	121	1	22
284	Harmonica	121	0	23
285	Bandoneon	121	0	24
286	Nylon-str.Gt	121	0	25
287	Ukulele	121	1	25
288	Nylon Gt.o	121	2	25
289	Nylon Gt.2	121	3	25
290	Steel-str.Gt	121	0	26
291	12-str.Gt	121	1	26
292	Mandolin	121	2	26
293	Steel + Body	121	3	26
294	Jazz Gt.	121	0	27
295	Pedal Steel	121	1	27
296	Clean Gt.	121	0	28
297	Chorus Gt.	121	1	28
298	Mid Tone GTR	121	2	28
299	Muted Gt.	121	0	29
300	Funk Pop	121	1	29
301	Funk Gt.2	121	2	29
302	Jazz Man	121	3	29
303	Overdrive Gt	121	0	30
304	Guitar Pinch	121	1	30
305	DistortionGt	121	0	31

No.	Tone Name	MSB	LSB	PC
306	Feedback Gt.	121	1	31
307	Dist Rtm GTR	121	2	31
308	Gt.Harmonics	121	0	32
309	Gt. Feedback	121	1	32
310	Acoustic Bs.	121	0	33
311	Fingered Bs.	121	0	34
312	Finger Slap	121	1	34
313	Picked Bass	121	0	35
314	Fretless Bs.	121	0	36
315	Slap Bass 1	121	0	37
316	Slap Bass 2	121	0	38
317	Synth Bass 1	121	0	39
318	SynthBass101	121	1	39
319	Acid Bass	121	2	39
320	Clavi Bass	121	3	39
321	Hammer	121	4	39
322	Synth Bass 2	121	0	40
323	Beef FM Bass	121	1	40
324	RubberBass 2	121	2	40
325	Attack Pulse	121	3	40
326	Violin	121	0	41
327	Slow Violin	121	1	41
328	Viola	121	0	42
329	Cello	121	0	43
330	Contrabass	121	0	44
331	Tremolo Str	121	0	45
332	PizzicatoStr	121	0	46
333	Harp	121	0	47
334	Yang Qin	121	1	47
335	Timpani	121	0	48
336	Orche str	121	0	49
337	Orchestra	121	1	49
338	60s Strings	121	2	49
339	Slow Strings	121	0	50
340	Syn.Strings1	121	0	51
341	Syn.Strings3	121	1	51
342	Syn.Strings2	121	0	52
343	Choir Aahs	121	0	53
344	Chorus Aahs	121	1	53
345	Voice Oohs	121	0	54
346	Humming	121	1	54
347	SynVox	121	0	55
348	Analog Voice	121	1	55
349	OrchestraHit	121	0	56
350	Bass Hit	121	1	56
351	6th Hit	121	2	56
352	Euro Hit	121	3	56
353	Trumpet	121	0	57
354	Dark Trumpet	121	1	57
355	Trombone	121	0	58
356	Trombone 2	121	1	58
357	Bright Tb	121	2	58
358	Tuba	121	0	59
359	MutedTrumpet	121	0	60
360	MuteTrumpet2	121	1	60
361	French Horns	121	0	61
362	Fr.Horn 2	121	1	61
363	Brass 1	121	0	62
364	Brass 2	121	1	62
365	Synth Brass1	121	0	63
366	Pro Brass	121	1	63
367	Oct SynBrass	121	2	63
368	Jump Brass	121	3	63
369	Synth Brass2	121	0	64
370	SynBrass sfz	121	1	64
371	Velo Brass 1	121	2	64
372	Soprano Sax	121	0	65
373	Alto Sax	121	0	66
374	Tenor Sax	121	0	67
375	Baritone Sax	121	0	68
376	Oboe	121	0	69
377	English Horn	121	0	70
378	Bassoon	121	0	71
379	Clarinet	121	0	72
380	Piccolo	121	0	73
381	Flute	121	0	74
382	Recorder	121	0	75
383	Pan Flute	121	0	76
384	Bottle Blow	121	0	77
385	Shakuhachi	121	0	78
386	Whistle	121	0	79
387	Ocarina	121	0	80
388	Square Wave	121	0	81
389	MG Square	121	1	81
390	2600 Sine	121	2	81
391	Saw Wave	121	0	82
392	OB2 Saw	121	1	82
393	Doctor Solo	121	2	82
394	Natural Lead	121	3	82
395	SequencedSaw	121	4	82
396	Syn.Calliope	121	0	83
397	Chiffer Lead	121	0	84
398	Charang	121	0	85
399	Wire Lead	121	1	85
400	Solo Vox	121	0	86
401	5th Saw Wave	121	0	87
402	Bass & Lead	121	0	88
403	Delayed Lead	121	1	88
404	Fantasia	121	0	89
405	Warm Pad	121	0	90
406	Sine Pad	121	1	90
407	Polysynth	121	0	91
408	Space Voice	121	0	92
409	Itopia	121	1	92
410	Bowed Glass	121	0	93
411	Metal Pad	121	0	94
412	Halo Pad	121	0	95
413	Sweep Pad	121	0	96
414	Ice Rain	121	0	97
415	Soundtrack	121	0	98
416	Crystal	121	0	99
417	Syn Mallet	121	1	99
418	Atmosphere	121	0	100
419	Brightness	121	0	101
420	Goblin	121	0	102
421	Echo Drops	121	0	103
422	Echo Bell	121	1	103
423	Echo Pan	121	2	103
424	Star Theme	121	0	104
425	Sitar	121	0	105
426	Sitar 2	121	1	105
427	Banjo	121	0	106
428	Shamisen	121	0	107
429	Koto	121	0	108
430	Taisho Koto	121	1	108
431	Kalimba	121	0	109
432	Bagpipe	121	0	110
433	Fiddle	121	0	111
434	Shanai	121	0	112
435	Tinkle Bell	121	0	113
436	Agogo	121	0	114
437	Steel Drums	121	0	115
438	Woodblock	121	0	116
439	Castanets	121	1	116
440	Taiko	121	0	117
441	Concert BD	121	1	117
442	Melo. Tom 1	121	0	118
443	Melo. Tom 2	121	1	118
444	Synth Drum	121	0	119
445	808 Tom	121	1	119
446	Elec Perc	121	2	119
447	Reverse Cym.	121	0	120
448	Gt.FretNoise	121	0	121
449	Gt.Cut Noise	121	1	121
450	String Slap	121	2	121
451	Breath Noise	121	0	122
452	Fl.Key Click	121	1	122
453	Seashore	121	0	123
454	Rain	121	1	123
455	Thunder	121	2	123
456	Wind	121	3	123
457	Stream	121	4	123
458	Bubble	121	5	123
459	Bird	121	0	124
460	Dog	121	1	124
461	Horse-Gallop	121	2	124
462	Bird 2	121	3	124
463	Telephone 1	121	0	125
464	Telephone 2	121	1	125
465	DoorCreaking	121	2	125
466	Door	121	3	125
467	Scratch	121	4	125
468	Wind Chimes	121	5	125
469	Helicopter	121	0	126
470	Car-Engine	121	1	126
471	Car-Stop	121	2	126
472	Car-Pass	121	3	126
473	Car-Crash	121	4	126
474	Siren	121	5	126
475	Train	121	6	126
476	Jetplane	121	7	126
477	Starship	121	8	126
478	Burst Noise	121	9	126
479	Applause	121	0	127
480	Laughing	121	1	127
481	Screaming	121	2	127
482	Punch	121	3	127
483	Heart Beat	121	4	127
484	Footsteps	121	5	127
485	Gun Shot	121	0	128
486	Machine Gun	121	1	128
487	Lasergun	121	2	128
488	Explosion	121	3	128

Rhythm Set List

* [EXC]: will not sound simultaneously with other percussion instruments of the same number.

		SX Pop Kit		SX Rock Kit		SX Jazz Kit		SX R&B Kit		SX House Kit	
	21	Rock Kick		Old Kick		Old Kick		Analog Kick 2		Dance Kick	
	22	Pop Kick		Pop Kick		Jazz Kick 1		TR909 Kick 1		Lo-Bit CHH	[EXC1]
	23	Analog Kick 1		Analog Kick 1		Analog Kick 1		TR909 Kick 2		Techno Kick 2	
	24	Hush Kick		Rock Kick		Jazz Swish		R&B CHH 2	[EXC1]	Concert Snare	
	25	Pop CHH 1	[EXC1]	Rock CHH1	[EXC1]	Jazz Tap 1		R&B CHH 3	[EXC1]	Snare Roll	
	26	Reg. Snare 1		Rock Snare 1		Jazz Tap 2		R&B CHH 4	[EXC1]	Finger Snap	
	27	Finger Snap		Finger Snap		Finger Snap		Finger Snap		High-Q	
	28	707 Claps		707 Claps		707 Claps		707 Claps		Slap	
	29	Hand Clap 1		Hand Clap 1		Hand Clap 1		Hand Clap 1		Scratch Push	
	30	Hand Clap 2		Hand Clap 2		Hand Clap 2		Gospel Hand Clap 2		Scratch Pull	
	31	Hand Clap 3		Hand Clap 3		Hand Clap 3		Hand Clap 2		Sticks	
	32	Pop PHH	[EXC1]	Pop PHH	[EXC1]	Pop PHH	[EXC1]	R&B CHH 5	[EXC1]	Square Click	
	33	Hand Clap 4		Hand Clap 4		Gospel Hand Clap		Gospel Hand Clap		Metro Click	
	34	Snare Roll		Snare Roll		Snare Roll		Lo-Bit CHH	[EXC1]	Metro Bell	
	35	Old Kick		Old Kick		Pop Kick		Analog Kick 1		House Kick 1	
C2	36	Hush Kick		Rock Kick		Jazz Kick 2		R&B Kick		House Kick 2	
	37	Reg.Stick		Rock Side Stick		Jazz Snare Swing		R&B Side Stick 1		R&B Side Stick 1	
	38	Reg. Snare		Rock Snare 1		Jazz Snare 1		R&B Snare 1		House Snare 1	
	39	Reg. Snare Ghost		Snare Ghost		Pop Snare Swing		R&B Snare 2		House Snare 2	
	40	Titan Snare		Rock Snare 2		Jazz Snare 2		R&B Snare 3		House Snare 3	
	41	Reg. Low Tom Flm		Rock Low Tom Flm		Jazz Low Tom Flm		Sharp Low Tom 6		House Low Tom 1	
	42	Pop CHH 1	[EXC1]	Rock CHH 1	[EXC1]	Pop CHH 1	[EXC1]	R&B CHH 1	[EXC1]	House CHH	[EXC1]
	43	Reg. Low Tom		Rock Low Tom		Jazz Low Tom		Sharp Low Tom 5		House Low Tom 2	
	44	Pop CHH 2	[EXC1]	Rock CHH 2	[EXC1]	Pop CHH 2	[EXC1]	R&B CHH 1	[EXC1]	House PHH	[EXC1]
	45	Reg.Mid Tom Flm		Rock Mid Tom Flm		Jazz Mid Tom Flm		Sharp Low Tom 4		House Mid Tom 1	
	46	Pop OHH	[EXC1]	Rock OHH	[EXC1]	Pop OHH	[EXC1]	R&B OHH	[EXC1]	House OHH	[EXC1]
	47	Reg. Mid Tom		Rock Mid Tom		Jazz Mid Tom		Sharp High Tom 3		House Mid Tom 2	
C3	48	Reg. High Tom Flm		Rock High Tom Flm		Jazz High Tom Flm		Sharp High Tom 2		House High Tom 1	
	49	Pop Crash Cymbal 1		Rock Crash Cymbal		Jazz Crash Cymbal		R&B Crash Cymbal		House Crash Cymbal	
	50	Reg. High Tom		Rock HighTom		Jazz HighTom		Sharp High Tom 1		House High Tom 2	
	51	Pop RideCymbal 1		Pop Ride Cymbal 2		Jazz Ride Cymbal 1		Pop Ride Cymbal 1		House Ride Cymbal	
	52	Pop Chinese Cymbal		Rock Chinese Cymbal		Jazz Chinese Cymbal		R&B Chinese Cym		Reverse Cymbal	
	53	Pop Ride Bell		Rock Ride Bell		Jazz Ride Cymbal 2		R&B Ride Bell		House Ride Bell	
	54	Tambourine		Tambourine		Tambourine		Tambourine		ShakeTambourine	
	55	Pop Splash Cymbal		Rock Splsh Cymbal		Pop Splsh Cymbal		TR909 Ride		House Splash Cymbal	
	56	Cha Cha Cowbell		Cha Cha Cowbell		Cha Cha Cowbell		Cha Cha Cowbell		House Cowbell	
	57	Pop Crash Cymbal 2		Rock Chinese Cymbal 2		Jazz Crash Cymbal 2		House Crash Cymbal		HouseCrash Cymbal	
	58	Vibraslap		Vibraslap		Vibraslap		Vibraslap		Vibraslap	
	59	Pop RideCymbal 2		Pop Ride Cymbal 1		Pop Ride Cymbal 1		Pop Ride Cymbal 2		Pop Ride Cymbal 2	
C4	60	Bongo Hi		Bongo Hi		Bongo Hi		House Bongo Hi		House Bongo Hi	
	61	Bongo Lo		Bongo Lo		Bongo Lo		House Bongo Lo		House Bongo Lo	
	62	Conga Mute		Conga Mute		Conga Mute		House Conga Hi		House Conga Hi	
	63	Conga Hi		Conga Hi		Conga Hi		House Conga Mt		House Conga Mt	
	64	Conga Lo		Conga Lo		Conga Lo		House Conga Lo		House Conga Lo	
	65	Timbale Hi		Timbale Hi		Timbale Hi		Timbale Hi		Timbale Hi	
	66	Timbale Lo		Timbale Lo		Timbale Lo		Timbale Lo		Timbale Lo	
	67	Agogo Bell Hi		Agogo Bell Hi		Agogo Bell Hi		Agogo Bell Hi		Agogo Bell Hi	
	68	Agogo Bell Lo		Agogo Bell Lo		Agogo Bell Lo		Agogo Bell Lo		Agogo Bell Lo	
	69	Shaker 2		Shaker 2		Shaker 2		Cabasa		Cabasa	
	70	Shaker 3		Shaker 3		Shaker 3		House Maracas		House Maracas	
	71	Whistle Short	[EXC2]	Whistle Short	[EXC2]	Whistle Short	[EXC2]	Whistle Short	[EXC2]	Whistle Short	[EXC2]
C5	72	Whistle Long	[EXC2]	Whistle Long	[EXC2]	Whistle Long	[EXC2]	Whistle Long	[EXC2]	Whistle Long	[EXC2]
	73	Guiro Short	[EXC3]	Guiro Short	[EXC3]	Guiro Short	[EXC3]	Guiro Short	[EXC3]	Guiro Short	[EXC3]
	74	Guiro Long	[EXC3]	Guiro Long	[EXC3]	Guiro Long	[EXC3]	Guiro Long	[EXC3]	Guiro Long	[EXC3]
	75	Claves		Claves		Claves		House Claves		House Claves	
	76	Wood Block Hi		Wood Block Hi		Wood Block Hi		Wood Block Hi		Wood Block Hi	
	77	Wood Block Lo		Wood Block Lo		Wood Block Lo		Wood Block Lo		Wood Block Lo	
	78	Cuica Mute	[EXC4]	Cuica Mute	[EXC4]	Cuica Mute	[EXC4]	Hoo Hi	[EXC4]	Hoo Hi	[EXC4]
	79	Cuica Open	[EXC4]	Cuica Open	[EXC4]	Cuica Open	[EXC4]	Hoo Lo	[EXC4]	Hoo Lo	[EXC4]
	80	Triangle Mt	[EXC5]	Triangle Mt	[EXC5]	Triangle Mt	[EXC5]	Triangle Mt	[EXC5]	Electric Triangle Mt	[EXC5]
	81	Triangle Op	[EXC5]	Triangle Op	[EXC5]	Triangle Op	[EXC5]	Triangle Op	[EXC5]	Electric Triangle Op	[EXC5]
	82	Cabasa		Cabasa		Cabasa		Shaker		Shaker	
	83	Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell	
C6	84	Wind Chime		Wind Chime		Wind Chime		Wind Chime		Wind Chime	
	85	Castanets		Castanets		Castanets		Castanets		Castanets	
	86	Surdo Mute	[EXC6]	Surdo Mute	[EXC6]	Surdo Mute	[EXC6]	Surdo Mute	[EXC6]	Surdo Mute	[EXC6]
	87	Surdo Open	[EXC6]	Surdo Open	[EXC6]	Surdo Open	[EXC6]	Surdo Open	[EXC6]	Surdo Open	[EXC6]
	88	Cana		Cana		Cana		Tambourine		Cana	
	89	Flamenco Timbale Hi		Flamenco Timbale Hi		Flamenco Timbale Hi		Tambourine		Flamenco Timbale Hi	
	90	Flamenco Timbale Lo		Flamenco Timbale Lo		Flamenco Timbale Lo		Cabasa Up		Flamenco Timbale Lo	
	91	Flamenco Timbale Flam		Flamenco Timbale Flam		Flamenco Timbale Flam		Cabasa Down		Flamenco Timbale Flam	
	92	Shaker 1		Shaker 1		Shaker 1		Shaker 1		Shaker 1	
	93	Shaker 2		Shaker 2		Shaker 2		Shaker 2		Shaker 2	
	94	Bongo Lo Mt		Bongo Lo Mt		Bongo Lo Mt		Bongo Lo Mt		Bongo Lo Mt	
	95	Grit Snare		LoFi Snare		Jazz Snare 1		Grit Snare		LoFi Snare	
C7	96	Jungle Snare 1		Jungle Snare 1		Jazz Snare 2		Jungle Snare 1		Jungle Snare 1	
	97	Reg.Stick		Rock Side Stick		Jazz Snare Swing		R&B Side Stick 2		R&B Side Stick 2	
	98	Titan Snare		Rock Snare 2		Jazz Swish		Analog Snare		Analog Snare	
	99	Old Kick		Old Kick		Old Kick		HipHop Kick		TR808 Kick 1	
	100	Pop Kick		Pop Kick		Jazz Kick 1		TR808 Kick 1		TR808 Kick 2	
	101	Rock Kick		Rock Kick		Jazz Kick 2		TR808 Kick 2		Jungle Kick	
	102	Analog Kick 1		Analog Kick 1		Analog Kick 1		Techno Kick		Techno Kick	
	103	Rock Snare Dry		Rock Snare Dry		Jazz Tap 1		Rock Snare Dry		Rock Snare Dry	
	104	Electric Snare		Electric Snare		Jazz Tap 2		Electric Snare		Electric Snare	
	105	Reg. Snare Ghost		Rock Snare Ghost		Pop Snare Swing		Jungle Snare 2		Jungle Snare 2	
	106	Slappy		Slappy		Slappy		Vinyl Noise		Slappy	
	107	Wah Gtr Noise 1		Wah Gtr Noise 1		Wah Gtr Noise 1		Wah Gtr Noise 1		Wah Gtr Noise 1	
C8	108	Wah Gtr Noise 2		Wah Gtr Noise 2		Wah Gtr Noise 2		Wah Gtr Noise 2		Wah Gtr Noise 2	

Rhythm Set List

* -----: No sound.

* [EXC]: will not sound simultaneously with other percussion instruments of the same number.

		GM2 STANDARD		GM2 ROOM		GM2 POWER		GM2 ELECTRIC	
	21	-----		-----		-----		-----	
	22	-----		-----		-----		-----	
	23	-----		-----		-----		-----	
	24	-----		-----		-----		-----	
	25	-----		-----		-----		-----	
	26	-----		-----		-----		-----	
	27	High-Q		High-Q		High-Q		High-Q	
	28	Slap		Slap		Slap		Slap	
	29	ScratchPush	[EXC7]	ScratchPush	[EXC7]	ScratchPush	[EXC7]	ScratchPush	[EXC7]
	30	ScratchPull	[EXC7]	ScratchPull	[EXC7]	ScratchPull	[EXC7]	ScratchPull	[EXC7]
	31	Sticks		Sticks		Sticks		Sticks	
	32	SquareClick		SquareClick		SquareClick		SquareClick	
	33	Mtrnm.Click		Mtrnm.Click		Mtrnm.Click		Mtrnm.Click	
	34	Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell	
	35	Jazz Kick 1		Mix Kick		Standard KK1		Power Kick1	
C2	36	Mix Kick		Standard KK1		Power Kick1		Elec Kick 1	
	37	Side Stick		Side Stick		Side Stick		Side Stick	
	38	Standard SN1		Standard SN2		Dance Snare1		Elec. Snare	
	39	909 HandClap		909 HandClap		909 HandClap		909 HandClap	
	40	Elec Snare 3		Elec Snare 7		Elec Snare 4		Elec Snare 2	
	41	Real Tom 6		Room Tom 5		Room Tom 5		Synth Drum 2	
	42	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]	Close HiHat2	[EXC1]
	43	Real Tom 6		Room Tom 6		Room Tom 6		Synth Drum 2	
	44	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]	Pedal HiHat2	[EXC1]
	45	Real Tom 4		Room Tom 2		Room Tom 2		Synth Drum 2	
	46	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]	Open HiHat2	[EXC1]
	47	Real Tom 4		Room Tom 2		Room Tom 2		Synth Drum 2	
C3	48	Real Tom 1		Rock Tom 1		Rock Tom 1		Synth Drum 2	
	49	Crash Cym.1		Crash Cym.1		Crash Cym.1		Crash Cym.1	
	50	Real Tom 1		Rock Tom 1		Rock Tom 1		Synth Drum 2	
	51	Ride Cymbal		Ride Cymbal		Ride Cymbal		Ride Cymbal	
	52	ChinaCymbal		ChinaCymbal		ChinaCymbal		ReverseCymbl	
	53	Ride Bell		Ride Bell		Ride Bell		Ride Bell	
	54	Tambourine		Tambourine		Tambourine		Tambourine	
	55	Splash Cym.		Splash Cym.		Splash Cym.		Splash Cym.	
	56	Cowbell		Cowbell		Cowbell		Cowbell	
	57	Crash Cym.2		Crash Cym.2		Crash Cym.2		Crash Cym.2	
	58	Vibraslap		Vibraslap		Vibraslap		Vibraslap	
	59	Ride Cymbal4		Ride Cymbal4		Ride Cymbal4		Ride Cymbal4	
C4	60	Bongo High		Bongo High		Bongo High		Bongo High	
	61	Bongo Lo		Bongo Lo		Bongo Lo		Bongo Lo	
	62	Mute H.Conga		Mute H.Conga		Mute H.Conga		Mute H.Conga	
	63	Conga Hi Opn		Conga Hi Opn		Conga Hi Opn		Conga Hi Opn	
	64	Conga Lo Opn		Conga Lo Opn		Conga Lo Opn		Conga Lo Opn	
	65	High Timbale		High Timbale		High Timbale		High Timbale	
	66	Low Timbale		Low Timbale		Low Timbale		Low Timbale	
	67	Agogo		Agogo		Agogo		Agogo	
	68	Agogo		Agogo		Agogo		Agogo	
	69	Cabasa		Cabasa		Cabasa		Cabasa	
	70	Maracas		Maracas		Maracas		Maracas	
	71	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]
C5	72	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]
	73	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]
	74	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]
	75	Claves		Claves		Claves		Claves	
	76	Woodblock		Woodblock		Woodblock		Woodblock	
	77	Woodblock		Woodblock		Woodblock		Woodblock	
	78	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]
	79	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]
	80	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]
	81	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]
	82	Shaker		Shaker		Shaker		Shaker	
	83	Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell	
C6	84	Bell Tree		Bell Tree		Bell Tree		Bell Tree	
	85	Castanets		Castanets		Castanets		Castanets	
	86	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]
	87	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]
	88	-----		-----		-----		-----	

* -----: No sound.

* [EXC]: will not sound simultaneously with other percussion instruments of the same number.

		GM2 ANALOG		GM2 JAZZ		GM2 BRUSH		GM2 ORCHSTRA		GM2 SFX	
	21	-----		-----		-----		-----		-----	
	22	-----		-----		-----		-----		-----	
	23	-----		-----		-----		-----		-----	
	24	-----		-----		-----		-----		-----	
	25	-----		-----		-----		-----		-----	
	26	-----		-----		-----		-----		-----	
	27	High-Q		High-Q		High-Q		Close HiHat2	[EXC1]	-----	
	28	Slap		Slap		Slap		Pedal HiHat2	[EXC1]	-----	
	29	ScratchPush	[EXC7]	ScratchPush	[EXC7]	ScratchPush	[EXC7]	Open HiHat2	[EXC1]	-----	
	30	ScratchPull	[EXC7]	ScratchPull	[EXC7]	ScratchPull	[EXC7]	Ride Cymbal3		-----	
	31	Sticks		Sticks		Sticks		Sticks		-----	
	32	SquareClick		SquareClick		SquareClick		SquareClick		-----	
	33	Mtrnm.Click		Mtrnm.Click		Mtrnm.Click		Mtrnm.Click		-----	
	34	Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell		Mtrnm. Bell		-----	
	35	TR-808 Kick2		Jazz Kick 2		Jazz Kick 2		Concert BD		-----	
C2	36	TR-808 Kick		Jazz Kick 1		Jazz Kick 1		Mix Kick		-----	
	37	808 Rimshot		Side Stick		Side Stick		Side Stick		-----	
	38	808 Snare 1		Standard SN3		Brush Swirl		Concert Snr		-----	
	39	909 HandClap		909 HandClap		Brush Slap1		Castanets		High-Q	
	40	Elec Snare 6		Elec Snare 5		Brush Swirl		Concert Snr		Slap	
	41	808 Tom 2		Real Tom 6		Brash Tom 2		Timpani		ScratchPush	[EXC7]
	42	TR-808 CHH	[EXC1]	Close HiHat2	[EXC1]	Close HiHat3	[EXC1]	Timpani		ScratchPull	[EXC7]
	43	808 Tom 2		Real Tom 6		Brash Tom 2		Timpani		Sticks	
	44	808__chh	[EXC1]	Pedal HiHat2	[EXC1]	Pedal HiHat3	[EXC1]	Timpani		SquareClick	
	45	808 Tom 2		Real Tom 4		Brash Tom 2		Timpani		Mtrnm.Click	
	46	TR-808 OHH	[EXC1]	Open HiHat2	[EXC1]	Open HiHat3	[EXC1]	Timpani		Mtrnm. Bell	
	47	808 Tom 2		Real Tom 4		Brash Tom 2		Timpani		Gt.FretNoiz	
C3	48	808 Tom 2		Real Tom 1		Brash Tom 2		Timpani		Gt.CutNoise	
	49	808 Crash		Crash Cym.1		Crash Cym.3		Timpani		Gt.CutNoise	
	50	808 Tom 2		Real Tom 1		Brash Tom 2		Timpani		String Slap	
	51	Ride Cymbal		Ride Cymbal		Ride Cymbal2		Timpani		Fl.KeyClick	
	52	ChinaCymbal		ChinaCymbal		ChinaCymbal		Timpani		Laughing	
	53	Ride Bell		Ride Bell 3		Ride Bell 2		Timpani		Screaming	
	54	Tambourine		Tambourine		Tambourine		Tambourine		Punch	
	55	Splash Cym.		Splash Cym.		Splash Cym.		Splash Cym.		Heart Beat	
	56	808cowbe		Cowbell		Cowbell		Cowbell		Footsteps	
	57	Crash Cym.2		Crash Cym.2		Crash Cym.2		Con.Cymbal2		Footsteps	
	58	Vibraslap		Vibraslap		Vibraslap		Vibraslap		Applause	
	59	Ride Cymbal4		Ride Cymbal4		Ride Cymbal4		Concert Cym.		Creaking	
C4	60	Bongo High		Bongo High		Bongo High		Bongo High		Door	
	61	Bongo Lo		Bongo Lo		Bongo Lo		Bongo Lo		Scratch	
	62	808 Conga		Mute H.Conga		Mute H.Conga		Mute H.Conga		Wind Chimes	
	63	808 Conga		Conga Hi Opn		Conga Hi Opn		Conga Hi Opn		Car-Engine	
	64	808 Conga		Conga Lo Opn		Conga Lo Opn		Conga Lo Opn		Car-Stop	
	65	High Timbale		High Timbale		High Timbale		High Timbale		Car-Pass	
	66	Low Timbale		Low Timbale		Low Timbale		Low Timbale		Car-Crash	
	67	Agogo		Agogo		Agogo		Agogo		Siren	
	68	Agogo		Agogo		Agogo		Agogo		Train	
	69	Cabasa		Cabasa		Cabasa		Cabasa		Jetplane	
	70	808marac		Maracas		Maracas		Maracas		Helicopter	
	71	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	ShrtWhistle	[EXC2]	Starship	
C5	72	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]	LongWhistle	[EXC2]	Gun Shot	
	73	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Short Guiro	[EXC3]	Machine Gun	
	74	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Long Guiro	[EXC3]	Lasergun	
	75	808clave		Claves		Claves		Claves		Explosion	
	76	Woodblock		Woodblock		Woodblock		Woodblock		Dog	
	77	Woodblock		Woodblock		Woodblock		Woodblock		HorseGallop	
	78	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Mute Cuica	[EXC4]	Bird	
	79	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Open Cuica	[EXC4]	Rain	
	80	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	MuteTriangl	[EXC5]	Thunder	
	81	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	OpenTriangl	[EXC5]	Wind	
	82	Shaker		Shaker		Shaker		Shaker		Seashore	
	83	Jingle Bell		Jingle Bell		Jingle Bell		Jingle Bell		Stream	
C6	84	Bell Tree		Bell Tree		Bell Tree		Bell Tree		Bubble	
	85	Castanets		Castanets		Castanets		Castanets		-----	
	86	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	Mute Surdo	[EXC6]	-----	
	87	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	Open Surdo	[EXC6]	-----	
	88	-----		-----		-----		Applause		-----	

Arpeggio Style List

No.	Arpeggio Style	No.	Arpeggio Style	No.	Arpeggio Style
1	Phrase 1	43	Phrase 11	85	Bassline 8
2	Key Backing 1	44	Phrase 12	86	Bassline 9
3	Pop Piano 1	45	Phrase 13	87	Bassline 10
4	Pop Piano 2	46	Phrase 14	88	Bassline 11
5	Phrase 2	47	Phrase 15	89	Bassline 12
6	Phrase 3	48	Phrase 16	90	Bassline 13
7	Single Note 1	49	Phrase 17	91	Bassline 14
8	Single Note 2	50	Phrase 18	92	Bassline 15
9	Rock Keys	51	Phrase 19	93	Bassline 16
10	Rock Shuffle	52	Phrase 20	94	Salsa 3
11	Blues Shuffle	53	Key Backing 2	95	Pop Harp
12	Blues	54	Key Backing 3	96	R&B Harp
13	Salsa 1	55	Key Backing 4	97	Synth 1
14	Salsa 2	56	Key Backing 5	98	Synth 2
15	Fast Bossa	57	Key Backing 6	99	Synth 3
16	Ballad Keys	58	Key Backing 7	100	Synth 4
17	Triplet Keys	59	Key Backing 8	101	Synth 5
18	Bossa Gtr	60	Key Backing 9	102	Synth 6
19	Synth Brass 1	61	Key Backing 10	103	Synth 7
20	Synth Brass 2	62	Key Backing 11	104	Seq Pattern 1
21	Jazz Strum	63	Key Backing 12	105	Seq Pattern 2
22	Pop Strum	64	Key Backing 13	106	Seq Pattern 3
23	Strum 1	65	Key Backing 14	107	Seq Pattern 4
24	Strum 2	66	Key Backing 15	108	Seq Pattern 5
25	Guitar Arp 1	67	Key Backing 16	109	Seq Pattern 6
26	Guitar Arp 2	68	Key Backing 17	110	Seq Pattern 7
27	Guitar Arp 3	69	Key Backing 18	111	Seq Pattern 8
28	Gtr Backing 1	70	5th Bass	112	Seq Pattern 9
29	Gtr Backing 2	71	8th Rock	113	Seq Pattern 10
30	Gtr Backing 3	72	Boogie Bass	114	Seq Pattern 11
31	Gtr Backing 4	73	Shuffle D Stop	115	Seq Pattern 12
32	Gtr Backing 5	74	Swing Bass	116	Seq Pattern 13
33	Rock Mute 1	75	Synth Bass 1	117	Seq Pattern 14
34	Rock Mute 2	76	Synth Bass 2	118	Seq Pattern 15
35	Rock Mute 3	77	Synth Bass 3	119	Seq Pattern 16
36	Phrase 4	78	Bassline 1	120	Seq Pattern 17
37	Phrase 5	79	Bassline 2	121	Basic 1
38	Phrase 6	80	Bassline 3	122	Basic 2
39	Phrase 7	81	Bassline 4	123	Basic 3
40	Phrase 8	82	Bassline 5	124	3 Tone Up
41	Phrase 9	83	Bassline 6	125	4 Tone Up
42	Phrase 10	84	Bassline 7	126	3 Tone Down

Rhythm Pattern List

No.	Rhythm Pattern	No.	Rhythm Pattern	No.	Rhythm Pattern
001	R&B Pop 1	063	R&B 6	125	Fast Bossa
002	R&B Pop 2	064	R&B 7	126	Pop Bossa
003	R&B 1	065	R&B 8	127	Salsa 1
004	R&B 2	066	R&B 9	128	Salsa 2
005	Shuffle Pop 1	067	R&B 10	129	Samba 1
006	Shuffle Pop 2	068	R&B 11	130	Samba 2
007	Latin Pop 1	069	R&B 12	131	Rhumba
008	Latin Pop 2	070	R&B 13	132	Mambo 1
009	Jazz Brush 1	071	R&B 14	133	Mambo 2
010	Jazz Waltz	072	R&B 15	134	Merengue
011	Ballad 1	073	R&B 16	135	Power Fusion 1
012	Ballad 2	074	R&B 17	136	Power Fusion 2
013	Rock 1	075	R&B 18	137	Rock 3
014	Rock 2	076	Funk 1	138	Rock 4
015	Back Beat 1	077	Funk 2	139	Rock 5
016	Back Beat 2	078	Funk 3	140	Rock 6
017	Elec Dance 1	079	8Beat Rock 1	141	Rock 7
018	Elec Dance 2	080	8Beat Rock 2	142	Rock 8
019	Pop 1	081	8Beat Rock 3	143	Rock 9
020	Pop 2	082	16Beat Rock 1	144	Rock 10
021	Pop 3	083	16Beat Rock 2	145	Rock 11
022	Pop 4	084	Ballad 3	146	Rock 12
023	8Beat Pop 1	085	Piano Ballad	147	Rock 13
024	8Beat Pop 2	086	Rockaballad	148	Rock 14
025	8Beat Pop 3	087	Blue Grass	149	Rock 15
026	8Bt Fusion 1	088	Combo 1	150	Rock 16
027	8Bt Fusion 2	089	Combo 2	151	Rock 17
028	Pop Funk 1	090	Fast Swing 1	152	Rock 18
029	Pop Funk 2	091	Fast Swing 2	153	Rock 19
030	Pop Funk 3	092	Swing 1	154	Rock 20
031	Pop Funk 4	093	Swing 2	155	Progressive
032	Pop Funk 5	094	Swing 3	156	Elec Dance 3
033	Pop Funk 6	095	Jazz Brush 2	157	Elec Dance 4
034	Pop Funk 7	096	Free Jazz	158	Elec Dance 5
035	Pop Funk 8	097	Jazz 1	159	Elec Dance 6
036	16Beat Pop 1	098	Jazz 2	160	Elec Dance 7
037	16Beat Pop 2	099	Jazz 3	161	Elec Dance 8
038	16Beat Pop 3	100	Jazz 4	162	Elec Dance 9
039	16Bt Fusion 1	101	Jazz 5	163	Elec Dance 10
040	16Bt Fusion 2	102	Jazz 6	164	Acid Jazz
041	16Bt Fusion 3	103	Jazz 7	165	Techno
042	Shuffle Pop 3	104	Jazz 8	166	Hip Hop
043	Shuffle Pop 4	105	Jazz 9	167	House
044	Shuffle Pop 5	106	Jazz 10	168	Jungle
045	Shuffle Pop 6	107	Blues 1	169	Dance
046	Shuffle Pop 7	108	Blues 2	170	Pop Waltz 1
047	West Coast	109	Gospel 1	171	Pop Waltz 2
048	Motown	110	Gospel 2	172	Pop Waltz 3
049	R&B Pop 3	111	Polka 1	173	Pop Waltz 4
050	R&B Pop 4	112	Polka 2	174	Simple Waltz 1
051	R&B Pop 5	113	Latin Pop 3	175	Simple Waltz 2
052	Back Beat 3	114	Latin Pop 4	176	3/4 Brush
053	Back Beat 4	115	Latin Pop 5	177	5/4 Fusion
054	Back Beat 5	116	Latin Pop 6	178	5/4 Swing
055	Back Beat 6	117	Latin Pop 7	179	5/8 Progress
056	Back Beat 7	118	Latin Pop 8	180	6/4 Fusion
057	Back Beat 8	119	Latin Pop 9	181	6/8 Progress
058	Back Beat 9	120	Latin Pop 10	182	6/8 Swing
059	Back Beat 10	121	Latin Pop 11	183	7/4 Fusion
060	R&B 3	122	Bossa Nova 1	184	7/4 Swing
061	R&B 4	123	Bossa Nova 2	185	7/8 Progress
062	R&B 5	124	Bossa Nova 3		

Setup List

→ **"Selecting Stored Settings ([SETUP])"** (p. 56)

No.001–020 "RHY: Setup": These Setups let you enjoy performing with a session-like feel while playing a Rhythm. Be sure to check it out. For more on Rhythms, refer to the **"Playing Rhythm ([RHYTHM/SONG])"** (p. 48).

No.	Setup Name	No.	Setup Name	No.	Setup Name
1	Piano&Pad 1	34	RHY:R&B Grv4	67	RHY:Jz Funk2
2	RHY:Contemp1	35	SX Orchestra	68	RHY:Jz Trio4
3	RHY:Rock 1	36	RHY:Phaser	69	Try! Slider
4	RHY:R&B Grv1	37	Chamber Orch	70	RHY:R&B Grv6
5	Piano&Pad 2	38	Paris Street	71	RHY:SaxBeats
6	RHY:LatinPop	39	RHY:Jz Trio2	72	RHY:Salsa
7	RHY:Contemp2	40	RHY:Elec 1	73	RHY:Contemp4
8	RHY:Disco 1	41	Touch Orch	74	RHY:Elec 3
9	GtrArp&Bass	42	RHY:Contemp3	75	RHY:Rock 4
10	RHY:RckBalad	43	RHY:Latin 1	76	RHY:Samba
11	Bell Pad	44	RHY:R&B Grv7	77	Mysterious
12	RHY:PianoPop	45	RHY:Synth/Gt	78	RHY:Jz Trio5
13	RHY:Dramatic	46	RHY:Lead/Brs	79	RHY:Blues 2
14	RHY:R&B Grv2	47	Large Choir	80	E.Piano&Pad2
15	RHY:Bossa 1	48	RHY:Elec 2	81	RHY:Trance 4
16	RHY:Trance 1	49	RHY:GrvFlute	82	RHY:Latin 4
17	RHY:Bigband	50	Melancholy	83	Jumpin'
18	RHY:R&B Grv5	51	RHY:Hps&Harp	84	RHY:Elec 4
19	PadpAdpaDp@d	52	RHY:Grv Scat	85	RHY:R&B Grv3
20	RHY:Fairy EP	53	RHY:Disco 2	86	RHY:Rock 5
21	RHY:Jz Trio1	54	RHY:Jz Trio3	87	RHY:SynSitar
22	RHY:GrvPiano	55	Bright Stack	88	RHY:ONDO
23	4 Split	56	RHY:Trance 3	89	Piano&EPiano
24	RHY:R&B Bld1	57	RHY:ShuflPop	90	Piano&Str.
25	RHY:Rock 2	58	A Cappella	91	RD SETUP
26	RHY:Trance 2	59	RHY:Grv E.P.	92	RD SETUP
27	OD Organ	60	E.Piano&Pad1	93	RD SETUP
28	RHY:PnoBalad	61	RHY:Rock 3	94	RD SETUP
29	RHY:Bossa 2	62	RHY:Latin 2	95	RD SETUP
30	RHY:SwingPop	63	RHY:Blues 1	96	RD SETUP
31	RHY:Clav+Org	64	RHY:Latin 3	97	RD SETUP
32	RHY:Jz Funk1	65	RHY:SpacePop	98	RD SETUP
33	RHY:SwingVib	66	Piano&Pad 3	99	RD SETUP

Setup No. 091–100 (RD SETUP) include the "Basic Setup." Use this when creating Setups from scratch.

Shortcut List

You can easily change settings for the following functions using a number of related buttons.

* *"[A] + [B]" indicates that you are to hold down [A] and press [B].*

What to do	Operation	Page
Switching Arpeggio Hold On and Off	[ARPEGGIO] + [CONTROL/ZONE LEVEL]	p. 96
Selecting Zone to Play Arpeggios	[ARPEGGIO] + ZONE SWITCH	p. 96
Changing Transpose setting	[TRANSPOSE] + Key	p. 42
Changing the Keyboard's Split Point	[SPLIT] + Key	p. 39
Panel Lock	[EDIT] + [ENTER]	p. 55
Changing the MFX2 Source	MULTI EFFECTS [ON/OFF] + ZONE SWITCH	p. 86
Setting the Reverb/Chorus Amount for each Part	ZONE SWITCH + REVERB or CHORUS knob	p. 71

You can easily call up Edit screens for related parameters for the following functions by holding down [SHIFT] while pressing buttons, turning knobs, or operating other controllers.

* *Example "Edit: Effects: Reverb Type" indicates the Effects' Reverb Type parameter in Edit screen.*

What to do	Operation	Page	Page
Switching the Damper Pedal's On/Off	[SHIFT] + Damper Pedal	Zone Info: Damper Pedal Switch	p. 70
Assigning Functions to Pedals	[SHIFT] + FC1/2	Edit: Control: FC1/FC2	p. 85
Setting the V-Link	[SHIFT] + [V-LINK]	Edit: V-Link	p. 97
Setting the Sound Control	[SHIFT] + [SOUND CONTROL]	Edit: Sound Control	p. 88
Selecting the Chorus/Delay Type	[SHIFT] + [CHORUS/DELAY]	Edit: Effects: Chorus Type	p. 88
Setting the Chorus Amount (*1)	[SHIFT] + CHORUS Knob	Tone Info: Chorus Amount	p. 71
Selecting the Reverb Type	[SHIFT] + [REVERB]	Edit: Effects: Reverb Type	p. 87
Setting the Reverb Amount (*1)	[SHIFT] + REVERB Knob	Tone Info: Reverb Amount	p. 71
Changing the [CONTROL] knob parameter	[SHIFT] + MULTI EFFECTS [CONTROL] Knob	Edit: Effects: MFX Control	p. 87
Changing the MFX Type	[SHIFT] + MULTI EFFECTS [ON/OFF]	Edit: Effects: MFX Type	p. 87
Changing the Rhythm Patterns	[SHIFT] + [RHYTHM/SONG]	Edit: Rhythm/Arpeggio: Rhythm Pattern	p. 93
Changing the Arpeggio Style	[SHIFT] + [ARPEGGIO]	Edit: Rhythm/Arpeggio: Arpeggio Style	p. 95
Selecting the Tone for each Zone (*1)	[SHIFT] + ZONE SWITCH	Zone Info: Tone	p. 68
Adjusting the Volume for each Zone (*1)	[SHIFT] + ZONE LEVEL Slider	Zone Info: Volume	p. 68
Assigning Functions to Sliders	[SHIFT] + [CONTROL/ZONE LEVEL]	Edit: Control: Slider Assign	p. 85
Loading SETUP Files	[SHIFT] + [SETUP]	Edit: File Utility/USB: Load SETUP File	p. 90
Setting the Transposition for each Tone (*1)	[SHIFT] + [TRANSPOSE]	Tone Info: Coarse Tune	p. 71
Setting the Key Range for each Zone (*1)	[SHIFT] + [SPLIT]	Zone Info: Key Range	p. 69
Turning the Controllers are used to control the Zone On and Off (*1)	[SHIFT] + Bender	Zone Info: Bender Sw	p. 70
	[SHIFT] + Modulation	Zone Info: Modulation Sw	

* *1: The INTERNAL zone settings are made while [EXTERNAL/INTERNAL] is set to OFF, the EXTERNAL zone settings are made while [EXTERNAL/INTERNAL] is set to ON.*

MIDI Implementation

Model: RD-700SX (Digital Piano)
Date: Nov. 1, 2004
Version: 1.00

1. Receive data

■Channel Voice Messages

●Note off

Status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H

n = MIDI channel number: 0H - FH (ch.1 - 16)
kk = note number: 00H - 7FH (0 - 127)
vv = note off velocity: 00H - 7FH (0 - 127)

* Some instruments are not received in Rhythm set.
* The velocity values of Note Off messages are ignored.

●Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
kk = note number: 00H - 7FH (0 - 127)
vv = note on velocity: 01H - 7FH (1 - 127)

●Control Change

❍Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm, ll = Bank number: 00 00H - 7F 7FH (bank.1 - bank.16384)

* Not received when the Rx Bank Select (EDIT:Part Parameter:Rx Bank Select) is OFF.
* The SETUP, Rhythms, and Tones corresponding to each Bank Select are as follows.
* The SRX series corresponding to each Bank Select are to see the SRX series owner's manual.

BANK SELECT MSB	LSB	PROGRAM NUMBER	GROUP	NUMBER
000		001 - 128	GM Tone	
:				
032		001 - 128	GM Tone	
085	000	001 - 100	SETUP	001 - 100
086	064	001 - 005	Rhythm Set	219 - 223
087	064	001 - 020	Tone (PIANO)	001 - 020
	065	001 - 021	Tone (E.PIANO)	021 - 041
	066	001 - 021	Tone (CALV/MALLET)	042 - 062
	067	001 - 020	Tone (ORGAN)	073 - 092
	068	001 - 022	Tone (STRINGS)	093 - 114
	069	001 - 020	Tone (PAD)	115 - 134
	070	001 - 038	Tone (GTR/BASS)	135 - 172
	071	001 - 024	Tone (BRASS/WINDS)	173 - 196
	072	001 - 022	Tone (VOICE/SYNTH)	197 - 218
	:		:	
092	000 -	001 -	SRX Rhythm	001 -
	:		:	
093	000 -	001 -	SRX Patch	001 -
	:		:	
112	000	001 - 010	TW-Organ	063 - 072
120		001 - 057	GM2 Rhythm	224 - 232
121	000 -	001 - 128	GM2 Tone	233 - 488

❍Modulation (Controller number 1)

Status	2nd byte	3rd byte
BnH	01H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Modulation depth: 00H - 7FH (0 - 127)

* Not received when the Rx Modulation (EDIT:Part Parameter:Rx Modulation) is OFF.

❍Portamento Time (Controller number 5)

Status	2nd byte	3rd byte
BnH	05H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Portamento Time: 00H - 7FH (0 - 127)

* The Portament Time parameter (Tone Info:Portament Time) will change.

❍Data Entry (Controller number 6, 38)

Status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm, ll = the value of the parameter specified by RPN/NRPN
mm = MSB, ll = LSB

❍Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Volume: 00H - 7FH (0 - 127)

* Not received when the Rx Volume (EDIT:Part Parameter:Rx Volume) is OFF.
* The Part Level parameter will change.

❍Panpot (Controller number 10)

Status	2nd byte	3rd byte
BnH	0AH	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Panpot: 00H - 40H - 7FH (Left - Center - Right),

* Not received when the Rx Pan (EDIT:Part Parameter:Rx Pan) is OFF.
* The pan parameter (EDIT:Part Parameter:Pan) will change.

❍Expression (Controller number 11)

Status	2nd byte	3rd byte
BnH	0BH	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Expression: 00H - 7FH (0 - 127)

❍ General Purpose Controller 1 (Controller number 16)

Status	2nd byte	3rd byte
BnH	10H	vvH

n = MIDI channel number:0H - FH (ch.1 - 16)
vv = Control value: 00H - 7FH (0 - 127)

❍Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Control value: 00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

* Not received when the Rx Hold-1 (EDIT:Part Parameter:Rx Hold-1) is OFF.

❍Portamento (Controller number 65)

Status	2nd byte	3rd byte
BnH	41H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Control value: 00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

* The Portamento Sw parameter (Tone Info:Portament Sw) will change.

❍Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Control value: 00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Control value: 00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Legato Foot Switch (Controller number 68)

Status	2nd byte	3rd byte
BnH	44H	vvH

n = MIDI channel number: 0H - FH (ch.1 - 16)
vv = Control value: 00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Resonance (Controller number 71)

Status	2nd byte	3rd byte
BnH	47H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv= Resonance value (relative change):		00H - 7FH (-64 - 0 - +63)

* The Resonanse parameter (Tone Info:Resonance) will change.

❍Release Time (Controller number 72)

Status	2nd byte	3rd byte
BnH	48H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Release Time value (relative change):		00H - 7FH (-64 - 0 - +63)

* The Release Time parameter (Tone Info:Release Time) will change.

❍Attack time (Controller number 73)

Status	2nd byte	3rd byte
BnH	49H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Attack time value (relative change):		00H - 7FH (-64 - 0 - +63),

* The Attack Time parameter (Tone Info:Attack Time) will change.

❍Cutoff (Controller number 74)

Status	2nd byte	3rd byte
BnH	4AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Cutoff value (relative change):		00H - 7FH (-64 - 0 - +63)

* The Cutoff parameter (Tone Info:Cutoff) will change.

❍Decay Time (Controller number 75)

Status	2nd byte	3rd byte
BnH	4BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Decay Time value (relative change):		00H - 7FH (-64 - 0 - +63)

* The Decay parameter (Tone Info:Decay) will change.

❍Vibrato Rate (Controller number 76)

Status	2nd byte	3rd byte
BnH	4CH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Vibrato Rate value (relative change):		00H - 7FH (-64 - 0 - +63)

❍Vibrato Depth (Controller number 77)

Status	2nd byte	3rd byte
BnH	4DH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Vibrato Depth Value (relative change):		00H - 7FH (-64 - 0 - +63)

❍Vibrato Delay (Controller number 78)

Status	2nd byte	3rd byte
BnH	4EH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Vibrato Delay value (relative change):		00H - 7FH (-64 - 0 - +63)

❍Portamento Control (Controller number 84)

Status	2nd byte	3rd byte
BnH	54H	kkH
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = source note number:		00H - 7FH (0 - 127)

* A Note-on received immediately after a Portamento Control message will change continuously in pitch, starting from the pitch of the Source Note Number.
* If a voice is already sounding for a note number identical to the Source Note Number, this voice will continue sounding (i.e., legato) and will, when the next Note-on is received, smoothly change to the pitch of that Note-on.
* The rate of the pitch change caused by Portamento Control is determined by the Portamento Time value.

❍Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Reverb Send Level:		00H - 7FH (0 - 127)

* The Reverb Amount parameter (Tone Info:Reverb Amount) will change.

❍Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd byte	3rd byte
BnH	5DH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Chorus Send Level:		00H - 7FH (0 - 127)

* The Chorus Amount parameter (Tone Info:Chorus Amount) will change.

❍RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	3rd byte
BnH	65H	mmH
BnH	64H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm = upper byte (MSB) of parameter number specified by RPN
ll = lower byte (LSB) of parameter number specified by RPN

<<< RPN >>>
Control Changes include RPN (Registered Parameter Numbers), which are extended.
When using RPNs, first RPN (Controller numbers 100 and 101; they can be sent in any order) should be sent in order to select the parameter, then
Data Entry (Controller numbers 6 and 38) should be sent to set the value. Once RPN messages are received, Data Entry messages that is received at the same MIDI channel after that are recognized as changing toward the value of the RPN messages. In order not to make any mistakes, transmitting RPN Null is recommended after setting parameters you need.

This device receives the following RPNs.

RPN MSB, LSB	Data entry MSB, LSB	Notes
00H, 00H	mmH, llH	Pitch Bend Sensitivity mm: 00H - 18H (0 - 24 semitones) ll: ignored (processed as 00H) Up to 2 octave can be specified in semitone steps. * The Bend Range parameter (Tone Info:Bend Range) will change.
00H, 01H	mmH, llH	Channel Fine Tuning mm, ll: 20 00H - 40 00H - 60 00H (-4096 x 100 / 8192 - 0 - +4096 x 100 / 8192 cent) * The Fine Tune parameter (Tone Info:Fine Tune) will change.
00H, 02H	mmH, llH	Channel Coarse Tuning mm: 10H - 40H - 70H (-48 - 0 - +48 semitones) ll: ignored (processed as 00H) * The Coarse Tune parameter (Tone Info:Coarse Tune) will change.
00H, 05H	mmH, llH	Modulation Depth Range mm, ll: 00 00H - 06 00H (0 - 16384 * 600 / 16384 cent)
7FH, 7FH	---, ---	RPN null RPN and NRPN will be set as "unspecified." Once this setting has been made, subsequent Parameter values that were previously set will not change. mm, ll: ignored

●Program Change

Status	2nd byte
CnH	ppH
n = MIDI channel number:	0H - FH (ch.1 - 16)
pp = Program number:	00H - 7FH (prog.1 - prog.128)

* Not received when the Rx Program Change parameter (EDIT:Part Parameter:Rx Program Chanage) is OFF.

●Pitch Bend Change

Status	2nd byte	3rd byte
EnH	llH	mmH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Pitch Bend value:		00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

* Not received when the Rx Bender parameter (EDIT:Part Parameter:Rx Bender) is OFF.

■Channel Mode Messages

●All Sounds Off (Controller number 120)

Status	2nd byte	3rd byte
BnH	78H	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* When this message is received, all notes currently sounding on the corresponding channel will be turned off.

●Reset All Controllers (Controller number 121)

Status	2nd byte	3rd byte
BnH	79H	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* When this message is received, the following controllers will be set to their reset values.

Controller	Reset value
Pitch Bend Change	±0 (center)
Channel Pressure	0 (off)
Modulation	0 (off)
Breath Type	0 (min)
Expression	127 (max)
Hold 1	0 (off)
Sostenuto	0 (off)
Soft	0 (off)
Hold 2	0 (off)
RPN	unset; previously set data will not change
NRPN	unset; previously set data will not change

●All Notes Off (Controller number 123)

Status	2nd byte	3rd byte
BnH	7BH	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* When All Notes Off is received, all notes on the corresponding channel will be turned off. However, if Hold 1 or Sostenuto is ON, the sound will be continued until these are turned off.

●OMNI OFF (Controller number 124)

Status	2nd byte	3rd byte
BnH	7CH	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* The same processing will be carried out as when All Notes Off is received.

●OMNI ON (Controller number 125)

Status	2nd byte	3rd byte
BnH	7DH	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* The same processing will be carried out as when All Notes Off is received. OMNI ON will not be turned on.

●MONO (Controller number 126)

Status	2nd byte	3rd byte
BnH	7EH	mmH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm = mono number:		00H - 10H (0 - 16)

* The same processing will be carried out as when All Notes Off is received.
* The Mono/Poly parameter (Tone Info:Mono/Poly) will change.

●POLY (Controller number 127)

Status	2nd byte	3rd byte
BnH	7FH	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* The same processing will be carried out as when All Notes Off is received.
* The Mono/Poly parameter (Tone Info:Mono/Poly) will change.

■System Realtime Message

●Timing Clock

Status
F8H

* This message will be received if the Clock Source parameter (EDIT:SYSTEM:Clock Source) is MIDI.

●Active Sensing

Status
FEH

* When Active Sensing is received, the unit will begin monitoring the intervals of all further messages. While monitoring, if the interval between messages exceeds 420 ms, the same processing will be carried out as when All Sounds Off, All Notes Off and Reset All Controllers are received, and message interval monitoring will be halted.

■System Exclusive Message

Status	Data byte	Status
F0H	iiH, ddH, ...,eeH	F7H
F0H:	System Exclusive Message status	

ii = ID number:	an ID number (manufacturer ID) to indicate the manufacturer whose Exclusive message this is. Roland's manufacturer ID is 41H. ID numbers 7EH and 7FH are extensions of the MIDI standard; Universal Non-realtime Messages (7EH) and Universal Realtime Messages (7FH).
dd,...,ee = data:	00H - 7FH (0 - 127)
F7H:	EOX (End Of Exclusive)

Of the System Exclusive messages received by this device, the Universal Non-realtime messages and the Universal Realtime messages and the Data Request (RQ1) messages and the Data Set (DT1) messages will be set automatically.

●Universal Non-realtime System Exclusive Messages

❍Identity Request Message

Status	Data byte	Status
F0H	7EH, dev, 06H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
dev	Device ID (dev: 10H - 1FH (1 - 32), the initial value is 10H (17).)
06H	Sub ID#1 (General Information)
01H	Sub ID#2 (Identity Request)
F7H	EOX (End Of Exclusive)

* When this message is received, Identity Reply message (p. 163) will be transmitted.

❍GM1 System On

Status	Data byte	Status
F0H	7EH, 7FH, 09H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
01H	Sub ID#2 (General MIDI 1 On)
F7H	EOX (End Of Exclusive)

* Not received when the Rx GM/GM2 System On parameter (EDIT:System:Rx GM/GM2 System ON) is OFF.

❍GM2 System On

Status	Data byte	Status
F0H	7EH 7FH 09H 03H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
03H	Sub ID#2 (General MIDI 2 On)
F7H	EOX (End Of Exclusive)

* Not received when the Rx GM/GM2 System On parameter (EDIT:System:Rx GM/GM2 System ON) is OFF.

❍GM System Off

Status	Data byte	Status
F0H	7EH, 7F, 09H, 02H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (General MIDI Message)
02H	Sub ID#2 (General MIDI Off)
F7H	EOX (End Of Exclusive)

* Not received when the Rx GS Reset parameter (EDIT:System:Rx GS Reset) is OFF.

●Universal Realtime System Exclusive Messages

❍Master Volume

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 01H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control messages)
01H	Sub ID#2 (Master Volume)
llH	Master Volume lower byte
mmH	Master Volume upper byte
F7H	EOX (End Of Exclusive)

* The lower byte (llH) of Master Volume will be handled as 00H.
* The Master Volume parameter (EDIT:System:Master Volume) will change.

❍Master Fine Tuning

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 03H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
03H	Sub ID#2 (Master Fine Tuning)
llH	Master Fine Tuning LSB
mmH	Master Fine Tuning MSB
F7H	EOX (End Of Exclusive)

mm, ll: 00 00H - 40 00H - 7F 7FH (-100 - 0 - +99.9 [cents])

❍Master Coarse Tuning

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 04H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
04H	Sub ID#2 (Master Coarse Tuning)
llH	Master Coarse Tuning LSB
mmH	Master Coarse Tuning MSB
F7H	EOX (End Of Exclusive)

ll:	ignored (processed as 00H)
mm:	28H - 40H - 58H (-24 - 0 - +24 [semitones])

●Global Parameter ControlReverb Parameters

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 05H, 01H, 01H, 01H, 01H, 01H, ppH, vvH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
05H	Sub ID#2 (Global Parameter Control)
01H	Slot path length
01H	Parameter ID width
01H	Value width
01H	Slot path MSB
01H	Slot path LSB (Effect 0101: Reverb)
ppH	Parameter to be controlled.
vvH	Value for the parameter.
	pp=0 Reverb Type
	vv = 00H Small Room
	vv = 01H Medium Room
	vv = 02H Large Room
	vv = 03H Medium Hall
	vv = 04H Large Hall
	vv = 08H Plate
	pp=1 Reverb Time
	vv = 00H - 7FH 0 - 127
F7H	EOX (End Of Exclusive)

❍Chorus Parameters

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 05H, 01H, 01H, 01H, 01H, 02H, ppH, vvH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
05H	Sub ID#2 (Global Parameter Control)
01H	Slot path length
01H	Parameter width
01H	Value width
01H	Slot path MSB
02H	Slot path LSB (Effect 0102: Chorus)
ppH	Parameter to be controlled.
vvH	Value for the parameter.
	pp=0 Chorus Type
	vv=0 Chorus1
	vv=1 Chorus2
	vv=2 Chorus3
	vv=3 Chorus4
	vv=4 FB Chorus
	vv=5 Flanger
	pp=1 Mod Rate
	vv= 00H - 7FH 0 - 127
	pp=2 Mod Depth
	vv = 00H - 7FH 0 - 127
	pp=3 Feedback
	vv = 00H - 7FH 0 - 127

	pp=4 Send To Reverb
	vv = 00H - 7FH 0 - 127
F7H	EOX (End Of Exclusive)

❍Channel Pressure

Status	Data byte	Status
F0H	7FH, 7FH, 09H, 01H, 0nH, ppH, rrH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (Controller Destination Setting)
01H	Sub ID#2 (Channel Pressure)
0nH	MIDI Channel (00 - 0F)
ppH	Controlled parameter
rrH	Controlled range
	pp=0 Pitch Control
	rr = 28H - 58H -24 - +24 [semitones]
	pp=1 Filter Cutoff Control
	rr = 00H - 7FH -9600 - +9450 [cents]
	pp=2 Amplitude Control
	rr = 00H - 7FH 0 - 200%
	pp=3 LFO Pitch Depth
	rr = 00H - 7FH 0 - 600 [cents]
	pp=4 LFO Filter Depth
	rr = 00H - 7FH 0 - 2400 [cents]
	pp=5 LFO Amplitude Depth
	rr = 00H - 7FH 0 - 100%
F7H	EOX (End Of Exclusive)

❍Controller

Status	Data byte	Status
F0H	7FH, 7FH, 09H, 03H, 0nH, ccH, ppH, rrH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
09H	Sub ID#1 (Controller Destination Setting)
03H	Sub ID#2 (Control Change)
0nH	MIDI Channel (00 - 0F)
ccH	Controller number (01 - 1F, 40 - 5F)
ppH	Controlled parameter
rrH	Controlled range
	pp=0 Pitch Control
	rr = 28H - 58H -24 - +24 [semitones]
	pp=1 Filter Cutoff Control
	rr = 00H - 7FH -9600 - +9450 [cents]
	pp=2 Amplitude Control
	rr = 00H - 7FH 0 - 200%
	pp=3 LFO Pitch Depth
	rr = 00H - 7FH 0 - 600 [cents]
	pp=4 LFO Filter Depth
	rr = 00H - 7FH 0 - 2400 [cents]
	pp=5 LFO Amplitude Depth
	rr = 00H - 7FH 0 - 100%
F7H	EOX (End Of Exclusive)

❍Scale/Octave Tuning Adjust

Status	Data byte	Status
F0H	7EH, 7FH, 08H, 08H, ffH, ggH, hhH, ssH...	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
7FH	Device ID (Broadcast)
08H	Sub ID#1 (MIDI Tuning Standard)
08H	Sub ID#2 (scale/octave tuning 1-byte form)
ffH	Channel/Option byte 1
	bits 0 to 1 = channel 15 to 16
	bit 2 to 6 = Undefined
ggH	Channel byte 2
	bits 0 to 6 = channel 8 to 14
hhH	Channel byte 3
	bits 0 to 6 = channel 1 to 7
ssH	12 byte tuning offset of 12 semitones from C to B
	00H = -64 [cents]
	40H = 0 [cents] (equal temperament)
	7FH = +63 [cents]
F7H	EOX (End Of Exclusive)

❍Key-based Instrument Controllers

Status	Data byte	Status
F0H	7FH, 7FH, 0AH, 01H, 0nH, kkH, nnH, vvH	F7H

Byte	Explanation	
F0H	Exclusive status	
7FH	ID number (universal realtime message)	
7FH	Device ID (Broadcast)	
0AH	Sub ID#1 (Key-Based Instrument Control)	
01H	Sub ID#2 (Controller)	
0nH	MIDI Channel (00 - 0F)	
kkH	Key Number	
nnH	Control Number	
vvH	Value	
	nn=07H Level	
	vv = 00H - 7FH	0 - 200% (Relative)
	nn=0AH	Pan
	vv = 00H - 7FH	Left - Right (Absolute)
	nn=5BH	Reverb Send
	vv = 00H - 7FH	0 - 127 (Absolute)
	nn=5D	Chorus Send
	vv = 00H - 7FH	0 - 127 (Absolute)
:	:	
F7	EOX (End Of Exclusive)	

* This parameter affects drum instruments only.

●Data Transmission

This instrument can use exclusive messages to exchange many varieties of internal settings with other devices.
The model ID of the exclusive messages used by this instrument is 00H 00H 03H.

❍Data Request 1 RQ1 (11H)

This message requests the other device to transmit data. The address and size indicate the type and amount of data that is requested.
When a Data Request message is received, if the device is in a state in which it is able to transmit data, and if the address and size are appropriate, the requested data is transmitted as a Data Set 1 (DT1) message. If the conditions are not met, nothing is transmitted.

Status	data byte	status
F0H	41H, dev, 00H, 00H, 03H, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	Devdevice ID (dev: 10H - 1FH, 7FH)
00H	Model ID #1 (RD-700SX)
00H	Model ID #2 (RD-700SX)
03H	model ID #3 (RD-700SX)
11H	Command ID (RQ1)
aaH	Address MSB
bbH	Address
ccH	Address
ddH	Address LSB
ssH	Size MSB
ttH	Size
uuH	Size
vvH	Size LSB
sum	Checksum
F7H	EOX (End Of Exclusive)

* The size of data that can be transmitted at one time is fixed for each type of data. And data requests must be made with a fixed starting address and size. Refer to the address and size given in **"Parameter Address Map"** (p. 164).
* For the checksum, refer to 168 page.

❍Data set 1 DT1

This is the message that actually performs data transmission, and is used when you wish to transmit the data.

Status	Data byte	Status
F0H	41H, dev, 00H, 00H, 03H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 10H - 1FH, 7FH, Initial value is 10H)
00H	Model ID #1 (RD-700SX)
00H	Model ID #2 (RD-700SX)
03H	Model ID #3 (RD-700SX)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the data to be sent
bbH	Address: upper middle byte of the starting address of the data to be sent
ccH	Address: lower middle byte of the starting address of the data to be sent
ddH	Address LSB: lower byte of the starting address of the data to be sent.
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.
:	:
ffH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

* The amount of data that can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size. Refer to the address and size given in **"Parameter Address Map"** (p. 164).
* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.
* Regarding the checksum, please refer to p. 168.

2. Data Transmission

■Channel Voice Messages

●Note off

Status	2nd byte	3rd byte
8nH	kkH	40H
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)

* Note off message is sent out with the velocity of 40H.

●Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)
vv = note on velocity:		01H - 7FH (1 - 127)

●Control Change

* By selecting a controller number that corresponds to the setting of parameters of controllers (Slider Assign, FC1/2 Pedal Assign), the RD-700SX can transmit any control change message.
* These messages are not transmitted when EXTERNAL Zone Parameter is OFF.

❍Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Bank number:		00 00H - 7F 7FH (bank.1 - bank.16384)

* When Rec Mode is ON (EDIT:Utility:Rec Setting:Rec Mode), these messages are transmitted when Tone is selected.

❍Modulation (Controller number 1)

Status	2nd byte	3rd byte
BnH	01H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Modulation depth:		00H - 7FH (0 - 127)

* These messages are transmitted when Modulation lever is operated.

❍Portamento Time (Controller number 5)

Status	2nd byte	3rd byte
BnH	05H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Portamento Time:		00H - 7FH (0 - 127)

* These messages are transmitted when Portament Time is set in EXTERNAL Zone.

❍Data Entry (Controller number 6, 38)

Status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH
n = MIDI channel number:		0H - FH (ch.1 - 16)

mm, ll = the value of the parameter specified by RPN/NRPN
mm = MSB, ll = LSB

* These messages are transmitted when Bend Range value is set in EXTERNAL Zone.

❍Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Volume:		00H - 7FH (0 - 127)

* These messages are transmitted when ZONE LEVEL Slider is operated.
* These messages are transmitted when Volume value is set in EXTERNAL Zone.

❍Panpot (Controller number 10)

Status	2nd byte	3rd byte
BnH	0AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Panpot:		00H - 40H - 7FH (Left - Center - Right)

* These messages are transmitted when Pan value is set in EXTERNAL Zone.

❍Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

* These messages are transmitted when Damper pedal is operated.

❍Portamento (Controller number 65)

Status	2nd byte	3rd byte
BnH	41H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

* These messages are transmitted when Portament Swicth is set in EXTERNAL Zone.

❍Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON

❍Resonance (Controller number 71)

Status	2nd byte	3rd byte
BnH	47H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv= Resonance value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Resonance value is set in EXTERNAL Zone.

❍Release Time (Controller number 72)

Status	2nd byte	3rd byte
BnH	48H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Release Time value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Release Time is set in EXTERNAL Zone.

❍Attack Time (Controller number 73)

Status	2nd byte	3rd byte
BnH	49H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Attack time value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Attack Time is set in EXTERNAL Zone.

❍Cutoff (Controller number 74)

Status	2nd byte	3rd byte
BnH	4AH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Cutoff value (relative change):		00H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Cutoff value is set in EXTERNAL Zone.

❍Decay Time (Controller number 75)

Status	2nd byte	3rd byte
BnH	4BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Decay Time value (relative change):		00H - 40H - 7FH (-64 - 0 - +63)

* These messages are transmitted when Decay Time value is set in EXTERNAL Zone.

❍Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Reverb Send Level:		00H - 7FH (0 - 127)

* These messages are transmitted when Reverb value is set in EXTERNAL Zone.

❍Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd byte	3rd byte
BnH	5DH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Reverb Send Level:		00H - 7FH (0 - 127)

* These messages are transmitted when Chorus value is set in EXTERNAL Zone.

❍RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	3rd byte
BnH	65H	mmH
BnH	64H	llH

n = MIDI channel number: 0H - FH (ch.1 - 16)
mm = upper byte (MSB) of parameter number specified by RPN
ll = lower byte (LSB) of parameter number specified by RPN

<<< RPN >>>
Control Changes include RPN (Registered Parameter Numbers), which are extended.
When using RPNs, first RPN (Controller numbers 100 and 101; they can be sent in any order) should be sent in order to select the parameter, then
Data Entry (Controller numbers 6 and 38) should be sent to set the value. Once RPN messages are received, Data Entry messages that is received at the same MIDI channel after that are recognized as changing toward the value of the RPN messages. In order not to make any mistakes, transmitting RPN Null is recommended after setting parameters you need.

This device transmits the following RPNs.

RPN MSB, LSB	Data entry MSB, LSB	Notes
00H, 00H	mmH, llH	Pitch Bend Sensitivity mm: 00H - 18H (0 - 24 semitones) ll: ignored (processed as 00H)
00H, 01H	mmH, llH	Channel Fine Tuning mm, ll: 20 00H - 40 00H - 60 00H (-4096 x 100 / 8192 - 0 - +4096 x 100 / 8192 cent)
00H, 02H	mmH, llH	Channel Coarse Tuning mm: 10H - 40H - 70H (-48 - 0 - +48 semitones) ll: ignored (processed as 00H)
00H, 05H	mmH, llH	Modulation Depth Range mm, ll: 00 00H - 06 00H (0 - 16384 x 600 / 16384 cent)
7FH, 7FH	---, ---	RPN null RPN and NRPN will be set as "unspecified." Once this setting has been made, subsequent

●Program Change

Status	2nd byte
CnH	ppH
n = MIDI channel number:	0H - FH (ch.1 - 16)
pp = Program number:	00H - 7FH (prog.1 - prog.128)

* When Rec Mode is ON (EDIT:Utility:Rec Setting:Rec Mode), these messages are transmitted when Tone is selected.

●Pitch Bend Change

Status	2nd byte	3rd byte
EnH	llH	mmH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Pitch Bend value:		00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

■Channel Mode Messages

●MONO (Controller number 126)

Status	2nd byte	3rd byte
BnH	7EH	01H
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm = mono number:		00H - 10H (0 - 16)

* These messages are transmitted when Mono/Poly value is set to MONO in EXTERNAL Zone.

●POLY (Controller number 127)

Status	2nd byte	3rd byte
BnH	7FH	00H
n = MIDI channel number:		0H - FH (ch.1 - 16)

* These messages are transmitted when Mono/Poly value is set to POLY in EXTERNAL Zone.

■System Realtime Messages

●Timing Clock

Status
F8H

* This message will be received if the Clock Out parameter (EDIT:SYSTEM:Clock Out) is ON.

●Start

Status
FAH

* This message is sent on START operation when START/STOP function is selected on Foot Controller.

●Stop

Status
FCH

* This message is sent on STOP operation when START/STOP function is selected on Foot Controller.

●Active Sensing

Status
FEH

* This message is transmitted at intervals of approximately 250 msec.

■System Exclusive Messages

Universal Non-realtime System Exclusive Message" and Data Set 1 (DT1) are the only System Exclusive messages transmitted by the RD-700SX.

●Universal Non-realtime System Exclusive Message

❍Identity Reply Message

Receiving Identity Request Message, the RD-700SX send this message.

Status	Data byte	Status
F0H	7EH, dev, 06H, 02H, 41H, 03H, 02H, 00H, 00H, 00H, 01H, 00H, 00H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
dev	Device ID (use the same as the device ID of Roland)
06H	Sub ID#1 (General Information)
02H	Sub ID#2 (Identity Reply)
41H	ID number (Roland)
03H 02H	Device family code (RD-700SX)
00H 00H	Device family number code (RD-700SX)
00H 01H 00H 00H	Software revision level
F7H	EOX (End of Exclusive)

●Data Transmission

❍Data set 1DT1 (12H)

Status	Data byte	Status
F0H	41H, dev, 00H, 00H, 03H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 00H - 1FH, Initial value is 10H)
00H	Model ID #1 (RD-700SX)
00H	Model ID #2 (RD-700SX)
03H	Model ID #3 (RD-700SX)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the data to be sent
bbH	Address: upper middle byte of the starting address of the data to be sent
ccH	Address: lower middle byte of the starting address of the data to be sent
ddH	Address LSB: lower byte of the starting address of the data to be sent.
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.
:	:
ffH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

* The amount of data that can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size. Refer to the address and size given in "Parameter Address Map" (p. 164).
* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.

3. Parameter Address Map

* Transmission of "#" marked address is divided to some packets. For example, ABH in hexadecimal notation will be divided to 0AH and 0BH, and is sent/received in this order.

1 RD-700SX (Model ID = 00H 00H 03H)

❍Indivisual Parameters

* These messages are transmitted when Bulk Dump Temporary funcion is executed.
* Please don't use a parameter or a address marked <Reserved>.
* The parameters for Setup are temporary. If you want to leave the parameters after the RD-700SX is turned off , execute SETUP Write.

Start Address	Description
01 00 00 00	System
10 00 00 00	SETUP (Temporary)

* System

Start Address	Description
01 00 00 00	System Common
01 00 02 00	System Sound Control
01 00 03 00	System Favorite SETUP
01 00 04 00	System V-Link
01 00 05 00	System One Touch Piano (TYPE A)
01 00 06 00	System One Touch Piano (TYPE B)
01 00 07 00	System One Touch EPiano (TYPE A)
01 00 08 00	System One Touch EPiano (TYPE B)

* SETUP (Temporary)

Start Address	Description
10 00 00 00	SETUP Common
10 00 02 00	SETUP Rhythm/Arpeggio
10 00 03 00	SETUP MFX (MFX1)
10 00 05 00	SETUP MFX (MFX2)
10 00 07 00	SETUP Chorus
10 00 08 00	SETUP Reverb
10 00 10 00	SETUP Internal Zone (UPPER1)
10 00 11 00	SETUP Internal Zone (UPPER2)
10 00 12 00	SETUP Internal Zone (LOWER1)
10 00 13 00	SETUP Internal Zone (LOWER2)
10 00 14 00	SETUP External Zone (UPPER1)
10 00 15 00	SETUP External Zone (UPPER2)
10 00 16 00	SETUP External Zone (LOWER1)
10 00 17 00	SETUP External Zone (LOWER2)
10 00 20 00	SETUP Part (Part: 01)
10 00 21 00	SETUP Part (Part: 02)
:	:
10 00 2F 00	SETUP Part (Part: 16)
10 00 30 00	SETUP TW-Organ 1 Backup
10 00 31 00	SETUP TW-Organ 2 Backup
:	:
10 00 39 00	SETUP TW-Organ 10 Backup

* System Common

Address		Description	
#01 00 00 00	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	Master Tune	(24 - 2024) -100.0 - 100.0 [cent]
01 00 00 04	000a aaaa	SETUP Control Channel	(0 - 16) 1 - 16, OFF
01 00 00 05	0000 000a	Clock Source	(0 - 1) INT, MIDI
01 00 00 06	0000 000a	Clock Out	(0 - 1) OFF, ON
01 00 00 07	0000 000a	Damper Polarity	(0 - 1) STANDARD, REVERSE
01 00 00 08	0000 000a	FC1 Polarity	(0 - 1) STANDARD, REVERSE
01 00 00 09	0000 000a	FC2 Polarity	(0 - 1) STANDARD, REVERSE
01 00 00 0A	0000 000a	EQ Mode	(0 - 1) SETUP, SYSTEM
01 00 00 0B	0000 000a	Pedal Mode	(0 - 1) SETUP, SYSTEM
01 00 00 0C	0aaa aaaa	System FC1 Assign	(0 - 108) OFF, CC01 - CC31, CC33 - CC95, BEND-UP, BEND-DOWN, AFTERTOUCH, OCT-UP, OCT-DOWN, START/STOP, TAP-TEMPO, RHY PLY/STP, ARPEGGIO SW, MFX ON/OFF, MFX CONTROL, SNG PLY/STP, SETUP-UP, SETUP-DOWN
01 00 00 0D	0aaa aaaa	System FC2 Assign	(0 - 108) OFF, CC01 - CC31, CC33 - CC95, BEND-UP, BEND-DOWN, AFTERTOUCH, OCT-UP, OCT-DOWN, START/STOP, TAP-TEMPO, RHY PLY/STP, ARPEGGIO SW, MFX ON/OFF, MFX CONTROL, SNG PLY/STP, SETUP-UP, SETUP-DOWN
01 00 00 0E	0000 000a	Tone Remain	(0 - 1) OFF, ON
00 00 00 0F	Total Size		

* System Sound Control

Address		Description	
01 00 02 00	0aaa aaaa	Low band Attack time	(0 - 100)
01 00 02 01	0aaa aaaa	Low band Release time	(0 - 100)
01 00 02 02	00aa aaaa	Low band Threshold	(0 - 36) -36, -35, -34, -33, -32, -31, -30, -29, -28, -27, -26, -25, -24, -23, -22, -21, -20, -19, -18, -17, -16, -15, -14, -13, -12, -11, -10, -9, -8, -7, -6, -5, -4, -3, -2, -1, 0 [dB]
01 00 02 03	0000 aaaa	Low band Ratio	(0 - 13) 1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF
01 00 02 04	000a aaaa	Low band Level	(0 - 24) 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11,12,13,14,15,16,17,18,19, 20,21,22,23,24 [dB]
01 00 02 05	0aaa aaaa	Mid band Attack time	(0 - 100)
01 00 02 06	0aaa aaaa	Mid band Release time	(0 - 100)
01 00 02 07	00aa aaaa	Mid band Threshold	(0 - 36) -36, -35, -34, -33, -32, -31, -30, -29, -28, -27, -26, -25, -24, -23, -22, -21, -20, -19, -18, -17, -16, -15, -14, -13, -12, -11, -10, -9, -8, -7, -6, -5, -4, -3, -2, -1, 0 [dB]
01 00 02 08	0000 aaaa	Mid band Ratio	(0 - 13) 1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF
01 00 02 09	000a aaaa	Mid band Level	(0 - 24) 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11,12,13,14,15,16,17,18,19, 20,21,22,23,24 [dB]
01 00 02 0A	0aaa aaaa	High band Attack time	(0 - 100)
01 00 02 0B	0aaa aaaa	High band Release time	(0 - 100)
01 00 02 0C	00aa aaaa	High band Threshold	(0 - 36) -36, -35, -34, -33, -32, -31, -30, -29, -28, -27, -26, -25, -24, -23, -22, -21, -20, -19, -18, -17, -16, -15, -14, -13, -12, -11, -10, -9, -8, -7, -6, -5, -4, -3, -2, -1, 0 [dB]
01 00 02 0D	0000 aaaa	High band Ratio	(0 - 13) 1:1.0, 1:1.1, 1:1.2, 1:1.4, 1:1.6, 1:1.8, 1:2.0, 1:2.5, 1:3.2, 1:4.0, 1:5.6, 1:8.0, 1:16, 1:INF
01 00 02 0E	000a aaaa	High band Level	(0 - 24) 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10,11,12,13,14,15,16,17,18,19, 20,21,22,23,24 [dB]
01 00 02 0F	0000 0aaa	Split Freq Low	(0 - 6) 200, 250, 315, 400, 500, 630, 800 [Hz]
01 00 02 10	0000 0aaa	Split Freq High	(0 - 6) 2000, 2500, 3150, 4000, 5000, 6300, 8000 [Hz]
00 00 00 11	Total Size		

* System Favorite SETUP

Address		Description	
01 00 03 00	0aaa aaaa	Favorite SETUP 0 (Bank A)	(0 - 100)
01 00 03 01	0aaa aaaa	Favorite SETUP 1 (Bank A)	(0 - 100)
01 00 03 02	0aaa aaaa	Favorite SETUP 2 (Bank A)	(0 - 100)
01 00 03 03	0aaa aaaa	Favorite SETUP 3 (Bank A)	(0 - 100)
01 00 03 04	0aaa aaaa	Favorite SETUP 4 (Bank A)	(0 - 100)
01 00 03 05	0aaa aaaa	Favorite SETUP 5 (Bank A)	(0 - 100)
01 00 03 06	0aaa aaaa	Favorite SETUP 6 (Bank A)	(0 - 100)
01 00 03 07	0aaa aaaa	Favorite SETUP 7 (Bank A)	(0 - 100)
01 00 03 08	0aaa aaaa	Favorite SETUP 8 (Bank A)	(0 - 100)
01 00 03 09	0aaa aaaa	Favorite SETUP 9 (Bank A)	(0 - 100)
01 00 03 0A	0aaa aaaa	Favorite SETUP 0 (Bank B)	(0 - 100)
01 00 03 0B	0aaa aaaa	Favorite SETUP 1 (Bank B)	(0 - 100)
01 00 03 0C	0aaa aaaa	Favorite SETUP 2 (Bank B)	(0 - 100)
01 00 03 0D	0aaa aaaa	Favorite SETUP 3 (Bank B)	(0 - 100)
01 00 03 0E	0aaa aaaa	Favorite SETUP 4 (Bank B)	(0 - 100)
01 00 03 0F	0aaa aaaa	Favorite SETUP 5 (Bank B)	(0 - 100)
01 00 03 10	0aaa aaaa	Favorite SETUP 6 (Bank B)	(0 - 100)
01 00 03 11	0aaa aaaa	Favorite SETUP 7 (Bank B)	(0 - 100)
01 00 03 12	0aaa aaaa	Favorite SETUP 8 (Bank B)	(0 - 100)
01 00 03 13	0aaa aaaa	Favorite SETUP 9 (Bank B)	(0 - 100)
01 00 03 14	0aaa aaaa	Favorite SETUP 0 (Bank C)	(0 - 100)
01 00 03 15	0aaa aaaa	Favorite SETUP 1 (Bank C)	(0 - 100)
01 00 03 16	0aaa aaaa	Favorite SETUP 2 (Bank C)	(0 - 100)
01 00 03 17	0aaa aaaa	Favorite SETUP 3 (Bank C)	(0 - 100)
01 00 03 18	0aaa aaaa	Favorite SETUP 4 (Bank C)	(0 - 100)
01 00 03 19	0aaa aaaa	Favorite SETUP 5 (Bank C)	(0 - 100)
01 00 03 1A	0aaa aaaa	Favorite SETUP 6 (Bank C)	(0 - 100)
01 00 03 1B	0aaa aaaa	Favorite SETUP 7 (Bank C)	(0 - 100)
01 00 03 1C	0aaa aaaa	Favorite SETUP 8 (Bank C)	(0 - 100)
01 00 03 1D	0aaa aaaa	Favorite SETUP 9 (Bank C)	(0 - 100)
01 00 03 1E	0aaa aaaa	Favorite SETUP 0 (Bank D)	(0 - 100)
01 00 03 1F	0aaa aaaa	Favorite SETUP 1 (Bank D)	(0 - 100)
01 00 03 20	0aaa aaaa	Favorite SETUP 2 (Bank D)	(0 - 100)
01 00 03 21	0aaa aaaa	Favorite SETUP 3 (Bank D)	(0 - 100)
01 00 03 22	0aaa aaaa	Favorite SETUP 4 (Bank D)	(0 - 100)
01 00 03 23	0aaa aaaa	Favorite SETUP 5 (Bank D)	(0 - 100)
01 00 03 24	0aaa aaaa	Favorite SETUP 6 (Bank D)	(0 - 100)
01 00 03 25	0aaa aaaa	Favorite SETUP 7 (Bank D)	(0 - 100)
01 00 03 26	0aaa aaaa	Favorite SETUP 8 (Bank D)	(0 - 100)
01 00 03 27	0aaa aaaa	Favorite SETUP 9 (Bank D)	(0 - 100)
00 00 00 28	Total Size		

* System V-Link

Address		Description	
01 00 04 00	0000 000a	Switch	(0 - 1) OFF,ON
01 00 04 01	0000 000a	Mode	(0 - 1) BANK/PC.NOTE
01 00 04 02	0aaa aaaa	Lowest No	(0 - 127)
01 00 04 03	0000 aaaa	Transmit Channel	(0 - 15)
01 00 04 04	0000 00aa	Transmit Port	(0 - 3) All,Out1,Out2,USB
01 00 04 05	0aaa aaaa	Key Range Lower	(0 - 87)
01 00 04 06	0aaa aaaa	Key Range Upper	(0 - 87)
01 00 04 07	0000 000a	Local Control	(0 - 1) OFF, ON
00 00 00 08	Total Size		

* System One Touch Piano
(Type A: t=5 Type B: t=6)

Address	Description	
01 00 0t 00	000a aaaa	Tone Number (0 - 19)
01 00 0t 01	00aa aaaa	Stereo Width (0 - 63)
01 00 0t 02	0000 00aa	Nuance (0 - 2) TYPE1, TYPE2, TYPE3
01 00 0t 03	0000 0aaa	Ambience (0 - 5) OFF, 1 - 5
01 00 0t 04	0aaa aaaa	Reverb Level (0 - 127)
01 00 0t 05	0000 0aaa	Lid (0 - 5) 1, 2, 3, 4, 5, 6
01 00 0t 06	0000 00aa	Mic Simulator (0 - 2) OFF, CONDENSER, DYNAMIC
01 00 0t 07	0000 aaaa	Mic Distance (0 - 10)
01 00 0t 08	0000 0aaa	String Resonance Level (0 - 5) OFF, 1 - 5
01 00 0t 09	0000 000a	EQ Switch (0 - 1) OFF,ON
01 00 0t 0A	000a aaaa	EQ Frequency (0 - 16) 100,125,160,200,250,315, 400,500,630,800,1000,1250, 1600,2000,2500,3150,4000[Hz]
01 00 0t 0B	0aaa aaaa	EQ Gain (4 - 124) -12 - +12[dB](0.2dB step)
01 00 0t 0C	0000 0aaa	EQ Q (0 - 4) 0.5, 1.0, 2.0, 4.0, 8.0
01 00 0t 0D	000a aaaa	Micro Tune Type (0 - 16) PRST, USER, 1 - 14
01 00 0t 0E	0000 aaaa	Sympathetic Resonance Depth (0 - 10)
01 00 0t 0F	0000 aaaa	Sympathetic Resonance Pitch (0 - 10)
01 00 0t 10	0000 aaaa	Sympathetic Resonance Level (0 - 10)
00 00 00 11	Total Size	

* System One Touch E.Piano
(Type A: t=7, Type B: t=8)

Address	Description	
01 00 0t 00	000a aaaa	Tone Number (0 - 20)
01 00 0t 01	0000 00aa	Amp Simulator Type (0 - 2) OFF, EP-AMP, GTR-AMP
01 00 0t 02	0000 0aaa	Effect Type (0 - 4) OFF, CHORUS, TREMOLO, AUTO-WAH, PHASER
01 00 0t 03	0aaa aaaa	Effect Depth (0 - 127)
#01 00 0t 04	0000 aaaa	
01 00 0t 05	0000 bbbb	Effect Rate (1 - 200) 0.05 - 10.00 [Hz]
01 00 0t 06	0000 000a	EQ Switch (0 - 1) OFF,ON
01 00 0t 07	000a aaaa	EQ Frequency (0 - 20) 100,125,160,200,250,315, 400,500,630,800,1000,1250, 1600,2000,2500,3150,4000[Hz]
01 00 0t 08	0aaa aaaa	EQ Gain (4 - 124) -12 - +12[dB](0.2dB step)
01 00 0t 09	0000 0aaa	EQ Q (0 - 4) 0.5, 1.0, 2.0, 4.0, 8.0
00 00 00 09	Total Size	

* SETUP Common

Address	Description	
10 00 00 00	0aaa aaaa	SETUP Name 1 (32 - 127) 32 - 127 [ASCII]
10 00 00 01	0aaa aaaa	SETUP Name 2 (32 - 127)
10 00 00 02	0aaa aaaa	SETUP Name 3 (32 - 127)
10 00 00 03	0aaa aaaa	SETUP Name 4 (32 - 127)
10 00 00 04	0aaa aaaa	SETUP Name 5 (32 - 127)
10 00 00 05	0aaa aaaa	SETUP Name 6 (32 - 127)
10 00 00 06	0aaa aaaa	SETUP Name 7 (32 - 127)
10 00 00 07	0aaa aaaa	SETUP Name 8 (32 - 127)
10 00 00 08	0aaa aaaa	SETUP Name 9 (32 - 127)
10 00 00 09	0aaa aaaa	SETUP Name 10 (32 - 127)
10 00 00 0A	0aaa aaaa	SETUP Name 11 (32 - 127)
10 00 00 0B	0aaa aaaa	SETUP Name 12 (32 - 127)
10 00 00 0C	0aaa aaaa	Voice Reserve 1 (0 - 64) 0 - 63, FULL
10 00 00 0D	0aaa aaaa	Voice Reserve 2 (0 - 64)
10 00 00 0E	0aaa aaaa	Voice Reserve 3 (0 - 64)
10 00 00 0F	0aaa aaaa	Voice Reserve 4 (0 - 64)
10 00 00 10	0aaa aaaa	Voice Reserve 5 (0 - 64)
10 00 00 11	0aaa aaaa	Voice Reserve 6 (0 - 64)
10 00 00 12	0aaa aaaa	Voice Reserve 7 (0 - 64)
10 00 00 13	0aaa aaaa	Voice Reserve 8 (0 - 64)
10 00 00 14	0aaa aaaa	Voice Reserve 9 (0 - 64)
10 00 00 15	0aaa aaaa	Voice Reserve 10 (0 - 64)
10 00 00 16	0aaa aaaa	Voice Reserve 11 (0 - 64)
10 00 00 17	0aaa aaaa	Voice Reserve 12 (0 - 64)
10 00 00 18	0aaa aaaa	Voice Reserve 13 (0 - 64)
10 00 00 19	0aaa aaaa	Voice Reserve 14 (0 - 64)
10 00 00 1A	0aaa aaaa	Voice Reserve 15 (0 - 64)
10 00 00 1B	0aaa aaaa	Voice Reserve 16 (0 - 64)
#10 00 00 1C	0000 aaaa 0000 bbbb	SETUP Tempo (10 - 250)
#10 00 00 1E	0000 000a 0000 bbbb 0000 cccc	Upper [PIANO] Tone Number (0 - 511)
#10 00 00 21	0000 000a 0000 bbbb 0000 cccc	Upper [E.PIANO] Tone Number (0 - 511)
#10 00 00 24	0000 000a 0000 bbbb 0000 cccc	Upper [CLAV/MALLET] Tone Number (0 - 511)
#10 00 00 27	0000 000a 0000 bbbb 0000 cccc	Upper [ORGAN] Tone Number (0 - 511)
#10 00 00 2A	0000 000a 0000 bbbb 0000 cccc	Upper [STRINGS] Tone Number (0 - 511)
#10 00 00 2D	0000 000a 0000 bbbb 0000 cccc	Upper [PAD] Tone Number (0 - 511)
#10 00 00 30	0000 000a 0000 bbbb 0000 cccc	Upper [GTR/BASS] Tone Number (0 - 511)
#10 00 00 33	0000 000a 0000 bbbb 0000 cccc	Upper [BRASS/WINDS] Tone Number (0 - 511)
#10 00 00 36	0000 000a 0000 bbbb 0000 cccc	Upper [VOICE/SYNTH] Tone Number (0 - 511)
#10 00 00 39	0000 000a 0000 bbbb 0000 cccc	Upper [RHY/GM2] Tone Number (0 - 511)
#10 00 00 3C	0000 000a 0000 bbbb 0000 cccc	Lower [PIANO] Tone Number (0 - 511)
#10 00 00 3F	0000 000a 0000 bbbb 0000 cccc	Lower [E.PIANO] Tone Number (0 - 511)
#10 00 00 42	0000 000a 0000 bbbb 0000 cccc	Lower [CLAV/MALLET] Tone Number (0 - 511)
#10 00 00 45	0000 000a 0000 bbbb 0000 cccc	Lower [ORGAN] Tone Number (0 - 511)
#10 00 00 48	0000 000a 0000 bbbb 0000 cccc	Lower [STRINGS] Tone Number (0 - 511)
#10 00 00 4B	0000 000a 0000 bbbb 0000 cccc	Lower [PAD] Tone Number (0 - 511)
#10 00 00 4E	0000 000a 0000 bbbb 0000 cccc	Lower [GTR/BASS] Tone Number (0 - 511)
#10 00 00 51	0000 000a 0000 bbbb 0000 cccc	Lower [BRASS/WINDS] Tone Number (0 - 511)
#10 00 00 54	0000 000a 0000 bbbb 0000 cccc	Lower [VOICE/SYNTH] Tone Number (0 - 511)
#10 00 00 57	0000 000a 0000 bbbb 0000 cccc	Lower [RHY/GM2] Tone Number (0 - 511)
10 00 00 5A	0aaa aaaa	FC 1 Assign (0 - 106) OFF, CC01 - CC31, CC33 - CC95, BEND-UP, BEND-DOWN, AFTERTOUCH, OCT-UP, OCT-DOWN, START/STOP, TAP-TEMPO, RHY PLY/STP, ARPEGGIO SW, MFX ON/OFF, MFX CONTROL, SNG PLY/STP
10 00 00 5B	0aaa aaaa	FC 2 Assign (0 - 106) OFF, CC01 - CC31, CC33 - CC95, BEND-UP, BEND-DOWN, AFTERTOUCH, OCT-UP, OCT-DOWN, START/STOP, TAP-TEMPO, RHY PLY/STP, ARPEGGIO SW, MFX ON/OFF, MFX CONTROL, SNG PLY/STP
00 5C	0000 0aaa	MFX Knob Assgin (0 - 4) OFF, MFX1-CTRL, MFX2-CTRL, MFX1&2-CTRL, TEMPO
10 00 00 5D	0000 000a	EQ Switch (0 - 1) OFF, ON
10 00 00 5E	0aaa aaaa	EQ Input Gain (4 - 124) -15 - +15[dB]
10 00 00 5F	000a aaaa	EQ Low Frequency (0 - 30) 16,20,25,31,40,50,63,80,100,125,160, 200,250,315,400,500,630,800,1000, 1250,1600,2000,2500,3150,4000,5000, 6300,8000,10000,12500,16000,[Hz]
10 00 00 60	0aaa aaaa	EQ Low Gain (4 - 124) -12.0 - +12.0[dB] (1step = 0.2dB)
10 00 00 61	0000 0aaa	EQ Low Q (0 - 4) 0.5, 1.0, 2.0, 4.0, 8.0
10 00 00 62	000a aaaa	EQ Mid Frequency (0 - 30) 16,20,25,31,40,50,63,80,100,125,160, 200,250,315,400,500,630,800,1000, 1250,1600,2000,2500,3150,4000,5000, 6300,8000,10000,12500,16000,[Hz]
10 00 00 63	0aaa aaaa	EQ Mid Gain (4 - 124) -12.0 - +12.0[dB] (1step = 0.2dB)
10 00 00 64	0000 0aaa	EQ Mid Q (0 - 4) 0.5, 1.0, 2.0, 4.0, 8.0
10 00 00 65	000a aaaa	EQ High Frequency (0 - 30) 16,20,25,31,40,50,63,80,100,125,160, 200,250,315,400,500,630,800,1000, 1250,1600,2000,2500,3150,4000,5000, 6300,8000,10000,12500,16000,[Hz]
10 00 00 66	0aaa aaaa	EQ High Gain (4 - 124) -12.0 - +12.0[dB] (1step = 0.2dB)
10 00 00 67	0000 0aaa	EQ High Q (0 - 4) 0.5, 1.0, 2.0, 4.0, 8.0
10 00 00 68	0aaa aaaa	Key Touch Velocity (0 - 127) REAL, 1 - 127
10 00 00 69	0000 0aaa	Key Touch Curve Type (1 - 5) SUPER LIGHT, LIGHT, MEDIUM, HEAVY, SUPER HEAVY
10 00 00 6A	000a aaaa	Key Touch Curve offset (54 - 73) -10 - +9
10 00 00 6B	0aaa aaaa	Key Touch Velocity Delay Sens (1 - 127) -63 - +63
10 00 00 6C	0aaa aaaa	Key Touch Velocity Key Follow (1 - 127) -63 - +63
10 00 00 6D	0000 000a	Slider Select (0 - 1) ZONE LEVEL, CONTROL
10 00 00 6E	0aaa aaaa	Slider Assign (UPPER1) (0 - 97) OFF, CC01 - CC31, CC33 - CC95, BEND-UP, BEND-DOWN, AFTERTOUCH,
10 00 00 6F	0aaa aaaa	Slider Assign (UPPER2) (0 - 97)
10 00 00 70	0aaa aaaa	Slider Assign (LOWER1) (0 - 97)
10 00 00 71	0aaa aaaa	Slider Assign (LOWER2) (0 - 97)
10 00 00 72	0000 000a	Transpose Switch (0 - 1) OFF, ON
10 00 00 73	0aaa aaaa	Transpose Value (16 - 112) -48 - +48
10 00 00 74	0000 000a	Split Switch (Internal) (0 - 1) OFF, ON
10 00 00 75	0000 000a	Split Switch (External) (0 - 1) OFF, ON
10 00 00 76	0aaa aaaa	(reserved)
10 00 00 77	0000 000a	MFX Structure (0 - 1) PARALLEL, SERIAL
10 00 00 78	0000 000a	MFX1 Switch (0 - 1) OFF, ON
10 00 00 79	0000 0aaa	MFX1 Source (0 - 4) FIXED,UPPER1,UPPER2,LOWER1,LOWER2
10 00 00 7A	0000 00aa	MFX1 Destination (0 - 2) SOURCE PART, SAME MFX PART, ALL PART
10 00 00 7B	0000 000a	MFX2 Switch (0 - 1) OFF, ON
10 00 00 7C	0000 0aaa	MFX2 Source (0 - 4) OFF,UPPER1,UPPER2,LOWER1,LOWER2
10 00 00 7D	0000 000a	(reserved)
10 00 00 7E	0000 000a	(reserved)
10 00 00 7F	0000 aaaa	Harmonic Bar Assign (LOWER2:ON) (1 - 9) 16',5-1/3',8',4',2-2/3',1-3/5',2',1-1/3',1'
10 00 01 00	0000 aaaa	Harmonic Bar Assign (LOWER2:OFF) (1 - 9)
10 00 01 01	0000 aaaa	Harmonic Bar Assign (LOWER1:ON) (1 - 9)
10 00 01 02	0000 aaaa	Harmonic Bar Assign (LOWER1:OFF) (1 - 9)
10 00 01 03	0000 aaaa	Harmonic Bar Assign (UPPER2:ON) (1 - 9)
10 00 01 04	0000 aaaa	Harmonic Bar Assign (UPPER2:OFF) (1 - 9)
10 00 01 05	0000 aaaa	Harmonic Bar Assign (UPPER1:ON) (1 - 9)
10 00 01 06	0000 aaaa	Harmonic Bar Assign (UPPER1:OFF) (1 - 9)
10 00 01 07	0000 000a	(reserved)
10 00 01 08	0000 000a	(reserved)
10 00 01 09	0aaa aaaa	(reserved)
00 00 01 0A	Total Size	

* SETUP Rhythm/Arpeggio

Address		Description	
#10 00 02 00	0000 aaaa		
	0000 bbbb	Rhythm Pattern	(0 - 184)
10 00 02 02	0aaa aaaa	Rhythm Accent	(0 - 100)
10 00 02 03	0000 000a	Rhythm Set Change Enable	(0 - 1)
10 00 02 04	000a aaaa	Rhythm MIDI Out Channel	(0 - 16) OFF,1-16
10 00 02 05	0000 0aaa	Rhythm MIDI Out Port	(0 - 4) OFF,1,2,USB,ALL
10 00 02 06	0000 0aaa	Arpeggio Zone	(0 - 4) ALL,UPPER1,UPPER2,LOWER1,LOWER2
10 00 02 07	0000 000a	Arpeggio Switch	(0 - 1) OFF,ON
10 00 02 08	0aaa aaaa	Arpeggio Stype	(0 - 127)
10 00 02 09	0000 aaaa	Arpeggio Motif	(0 - 11) UP(L),UP(H&L).UP(_),DOWN(L),DOWN(L&H), DOWN_,UP&DOWN(L),UP&DOWN(L&H),UP&DOWN(_), RANDOM(L),RANDOM(_),RHASE
10 00 02 0A	0aaa aaaa	Arpeggio Accent	(0 - 100) 0 - 100%
10 00 02 0B	0aaa aaaa	Arpeggio Velocity	(0 - 127) REAL,1 - 127
10 00 02 0C	0000 0aaa	Arpeggio Octave Range	(61 - 67) -3 - +3
10 00 02 0D	0000 000a	Arpeggio Hold	(0 - 1) OFF,ON
10 00 02 0E	0aaa aaaa	Key Range Lower	(0 - 87)
10 00 02 0F	0aaa aaaa	Key Range Upper	(0 - 87)
10 00 02 10	0000 aaaa	Rhythm Arpeggio Grid	(0 - 8) 1/4, 1/8, 1/8L, 1/8H, 1/12, 1/16, 1/16L, 1/16H, 1/24
10 00 02 11	0000 aaaa	Rhythm Arpeggio Duration	(0 - 9) 30, 40, 50, 60, 70, 80, 90, 100, 120, FULL
00 00 00 12	Total Size		

* SETUP MFX 1,2
(MFX1: m=3,n=4, MFX2: m=5,n=6)

Address		Description	
10 00 0m 00	0aaa aaaa	MFX Type	(0 - 125)
10 00 0m 01	0aaa aaaa	MFX Dry Send Level	(0 - 127)
10 00 0m 02	0aaa aaaa	MFX Chorus Send Level	(0 - 127)
10 00 0m 03	0aaa aaaa	MFX Reverb Send Level	(0 - 127)
10 00 0m 04	0000 00aa		
:	:	(reserved)	
10 00 0m 08	000a aaaa		
#10 00 0m 09	0000 aaaa		
:	:	MFX Parameter (1-32)	(12768 - 52768)
#10 00 0n 05	0000 aaaa		-20000 - +20000
00 00 01 09	Total Size		

* SETUP Chorus

Address		Description	
10 00 07 00	0000 aaaa	Chorus Type	(0 - 3) OFF, CHORUS, DELAY, GM2 CHORUS
10 00 07 01	0aaa aaaa	Chorus Level	(0 - 127)
10 00 07 02	0000 00aa	(reserved)	
10 00 07 03	0000 00aa	Chorus Output Select	(0 - 2) MAIN, REV, MAIN+REV
#10 00 07 04	0000 aaaa		
:	:	Chorus Parameter (1-20)	(12768 - 52768)
#10 00 07 53	0000 aaaa		-20000 - +20000
00 00 00 54	Total Size		

* SETUP Reverb

Address		Description	
10 00 08 00	0000 aaaa	Reverb Type	(0 - 7) OFF, REVERB, ROOM, HALL, PLATE, GM2 REVERB, CATHEDRAL
10 00 08 01	0aaa aaaa	Reverb Level	(0 - 127)
10 00 08 02	0000 00aa	(reserved)	
#10 00 08 03	0000 aaaa		
:	:	Reverb Parameter (1-20)	(12768 - 52768)
#10 00 08 52	0000 aaaa		-20000 - +20000
00 00 00 53	Total Size		

* SETUP Internal Zone
(UPPER1: z=0)
(UPPER2: z=1)
(LOWER1: z=2)
(LOWER2: z=3)

Address		Description	
10 00 1z 00	0aaa aaaa	Keyboard Range Lower	(0 - 87) A0 - UPPER
10 00 1z 01	0aaa aaaa	Keyboard Range Upper	(0 - 87) LOWER - C8
10 00 1z 02	0aaa aaaa	Velocity Range Lower	(1 - 127)
10 00 1z 03	0aaa aaaa	Velocity Range Upper	(1 - 127)
10 00 1z 04	0aaa aaaa	Velocity Sensitivity	(1 - 127) -63 - +63
10 00 1z 05	0aaa aaaa	Velocity Max	(1 - 127)
10 00 1z 06	0aaa aaaa	keyboard Transpose	(16 - 112) -48 - +48
10 00 1z 07	0000 000a	Zone Switch	(0 - 1) OFF, ON
10 00 1z 08	0000 000a	Damper Switch	(0 - 1) OFF, ON
10 00 1z 09	0000 000a	FC1 Switch	(0 - 1) OFF, ON
10 00 1z 0A	0000 000a	FC2 Switch	(0 - 1) OFF, ON
10 00 1z 0B	0000 000a	Modulation Switch	(0 - 1) OFF, ON
10 00 1z 0C	0000 000a	Bender Switch	(0 - 1) OFF, ON
10 00 1z 0D	0000 000a	Control Slider Swtch (UPPER1)	(0 - 1) OFF, ON
10 00 1z 0E	0000 000a	Control Slider Swtch (UPPER2)	(0 - 1) OFF, ON
10 00 1z 0F	0000 000a	Control Slider Swtch (LOWER1)	(0 - 1) OFF, ON
10 00 1z 10	0000 000a	Control Slider Swtch (LOWER2)	(0 - 1) OFF, ON
10 00 1z 11	0000 aaaa	Part Assign	(0 - 15) 1 - 16
00 00 00 12	Total Size		

* SETUP External Zone
(UPPER1: z=4)
(UPPER2: z=5)
(LOWER1: z=6)
(LOWER2: z=7)

Address		Description	
10 00 1z 00	0aaa aaaa	Keyboard Range Lower	(0 - 87) A0 - UPPER
10 00 1z 01	0aaa aaaa	Keyboard Range Upper	(0 - 87) LOWER - C8
10 00 1z 02	0aaa aaaa	Velocity Range Lower	(1 - 127)
10 00 1z 03	0aaa aaaa	Velocity Range Upper	(1 - 127)
10 00 1z 04	0aaa aaaa	Velocity Sensitivity	(1 - 127) -63 - +63
10 00 1z 05	0aaa aaaa	Velocity Max	(1 - 127)
10 00 1z 06	0aaa aaaa	keyboard Transpose	(16 - 112) -48 - +48
10 00 1z 07	0000 000a	Zone Switch	(0 - 1) OFF, ON
10 00 1z 08	0000 000a	Damper Switch	(0 - 1) OFF, ON
10 00 1z 09	0000 000a	FC1 Switch	(0 - 1) OFF, ON
10 00 1z 0A	0000 000a	FC2 Switch	(0 - 1) OFF, ON
10 00 1z 0B	0000 000a	Modulation Switch	(0 - 1) OFF, ON
10 00 1z 0C	0000 000a	Bender Switch	(0 - 1) OFF, ON
10 00 1z 0D	0000 000a	Control Switch (MFX)	(0 - 1) OFF, ON
10 00 1z 0E	0000 000a	Control Slider Switch (UPPER1)	(0 - 1) OFF, ON
10 00 1z 0F	0000 000a	Control Slider Switch (UPPER2)	(0 - 1) OFF, ON
10 00 1z 10	0000 000a	Control Slider Switch (LOWER1)	(0 - 1) OFF, ON
10 00 1z 11	0000 000a	Control Slider Switch (LOWER2)	(0 - 1) OFF, ON
10 00 1z 12	0000 00aa	Transmit Port	(0 - 3) ALL,OUT1,OUT2,USB
10 00 1z 13	0000 aaaa	Transmit Channel	(0 - 15) 1 - 16
10 00 1z 14	0000 000a	Transmit Bank Select MSB Switch	(0 - 1) OFF, ON
10 00 1z 15	0aaa aaaa	Transmit Bank Select MSB (CC# 0)	(0 - 127)
10 00 1z 16	0000 000a	Transmit Bank Select LSB Switch	(0 - 1) OFF, ON
10 00 1z 17	0aaa aaaa	Transmit Bank Select LSB (CC# 32)	(0 - 127)
10 00 1z 18	0000 000a	Transmit Program Change Switch	(0 - 1) OFF, ON
10 00 1z 19	0aaa aaaa	Transmit Program Change#	(0 - 127)
10 00 1z 1A	0000 000a	Transmit Level Switch	(0 - 1) OFF, ON
10 00 1z 1B	0aaa aaaa	Transmit Level (CC# 7)	(0 - 127)
10 00 1z 1C	0000 000a	Transmit Pan Switch	(0 - 1) OFF, ON
10 00 1z 1D	0aaa aaaa	Transmit Pan(CC# 10)	(0 - 127) L64 - R63
10 00 1z 1E	0000 000a	Transmit Coarse Tune Switch	(0 - 1) OFF, ON
10 00 1z 1F	0aaa aaaa	Transmit Coarse Tune	(16 - 112) -48 - +48
10 00 1z 20	0000 000a	Transmit Fine Tune Switch	(0 - 1) OFF, ON
10 00 1z 21	0aaa aaaa	Transmit Fine Tune	(14 - 114) -50 - +50
10 00 1z 22	0000 000a	Transmit Mono/Poly Switch	(0 - 1) OFF, ON
10 00 1z 23	0000 00aa	Transmit Mono/Poly	(0 - 1) MONO, POLY
10 00 1z 24	0000 000a	Transmit Portamento Switch	(0 - 1) OFF, ON
10 00 1z 25	0000 000a	Transmit Portamento Switch Value	(0 - 1) OFF, ON
10 00 1z 26	0000 000a	Transmit Portamento Time Switch	(0 - 1) OFF, ON
10 00 1z 27	0aaa aaaa	Transmit Portamento Time	(0 - 127)
10 00 1z 28	0000 000a	Transmit Cutoff Switch	(0 - 1) OFF, ON
10 00 1z 29	0aaa aaaa	Transmit Cutoff	(0 - 127) -64 - +63
10 00 1z 2A	0000 000a	Transmit Resonance Switch	(0 - 1) OFF, ON
10 00 1z 2B	0aaa aaaa	Transmit Resonance	(0 - 127) -64 - +63
10 00 1z 2C	0000 000a	Transmit Attack Time Switch	(0 - 1) OFF, ON
10 00 1z 2D	0aaa aaaa	Transmit Attack Time	(0 - 127) -64 - +63
10 00 1z 2E	0000 000a	Transmit Decay Time Switch	(0 - 1) OFF, ON
10 00 1z 2F	0aaa aaaa	Transmit Decay Time	(0 - 127) -64 - +63
10 00 1z 30	0000 000a	Transmit Release Time Switch	(0 - 1) OFF, ON
10 00 1z 31	0aaa aaaa	Transmit Release Time	(0 - 127) -64 - +63
10 00 1z 32	0000 000a	Transmit Pitch Bend Range Switch	(0 - 1) OFF, ON
10 00 1z 33	00aa aaaa	Transmit Pitch Bend Range	(0 - 48)
10 00 1z 34	0000 000a	Transmit Modulation Depth Switch	(0 - 1) OFF, ON
10 00 1z 35	0aaa aaaa	Transmit Modulation Depth	(0 - 127) 0 - 100 Cent

10 00 1z 36	0000 000a	Transmit Chorus Level Switch	(0 - 1) OFF, ON
10 00 1z 37	0aaa aaaa	Transmit Chorus Level	(0 - 127)
10 00 1z 38	0000 000a	Transmit Reverb Level Switch	(0 - 1) OFF, ON
10 00 1z 39	0aaa aaaa	Transmit Reverb Level	(0 - 127)
10 00 1z 3A	0000 000a	Transmit Control Change 1 Switch	(0 - 1) OFF, ON
10 00 1z 3B	0aaa aaaa	Transmit Control Change 1 Number	(0 - 127)
10 00 1z 3C	0aaa aaaa	Transmit Control Change 1 Value	(0 - 127)
10 00 1z 3D	0000 000a	Transmit Control Change 2 Switch	(0 - 1) OFF, ON
10 00 1z 3E	0aaa aaaa	Transmit Control Change 2 Number	(0 - 127)
10 00 1z 3F	0aaa aaaa	Transmit Control Change 2 Value	(0 - 127)
00 00 00 40	Total Size		

* SETUP Part
(p: Part Number(0-F) Part1: p=0, Part2: p=1... Part16:p=f)

Address	Description		
10 00 2p 00	0000 aaaa	Receive Channel	(0 - 15) 1 - 16
10 00 2p 01	0000 000a	Mute Switch	(0 - 1) OFF, ON
10 00 2p 02	0aaa aaaa	Tone Bank Select MSB (CC# 0)	(0 - 127)
10 00 2p 03	0aaa aaaa	Tone Bank Select LSB (CC# 32)	(0 - 127)
10 00 2p 04	0aaa aaaa	Tone Program Change#	(0 - 127)
10 00 2p 05	0aaa aaaa	Part Level (CC# 7)	(0 - 127)
10 00 2p 06	0aaa aaaa	Part Pan (CC# 10)	(0 - 127) L64 - 63R
10 00 2p 07	0aaa aaaa	Coarse Tune	(16 - 112) -48 - +48
10 00 2p 08	0aaa aaaa	Fine Tune	(14 - 114) -50 - +50
10 00 2p 09	0000 00aa	Mono/Poly	(0 - 2) MONO, POLY, MONO/LEGATO
10 00 2p 0A	000a aaaa	Pitch Bend Range	(0 - 24)
10 00 2p 0B	0000 000a	Portamento Switch	(0 - 1) OFF, ON
#10 00 2p 0C	0000 aaaa 0000 bbbb	Portamento Time	(0 - 127)
10 00 2p 0E	0aaa aaaa	Cutoff	(0 - 127) -63 - +63
10 00 2p 0F	0aaa aaaa	Resonance	(0 - 127) -63 - +63
10 00 2p 10	0aaa aaaa	Attack Time	(0 - 127) -63 - +63
10 00 2p 11	0aaa aaaa	Decay Time	(0 - 127) -63 - +63
10 00 2p 12	0aaa aaaa	Release Time	(0 - 127) -63 - +63
10 00 2p 13	0aaa aaaa	Chorus Amount	(0 - 127)
10 00 2p 14	0aaa aaaa	Reverb Amount	(0 - 127)
10 00 2p 15	0aaa aaaa	MFX Type	(0 - 125)
10 00 2p 16	0000 000a	Part MFX Switch	(0 - 1) OFF, ON
10 00 2p 17	0000 000a	Receive Bank Select Switch	(0 - 1) OFF, ON
10 00 2p 18	0000 000a	Receive Program Change Switch	(0 - 1) OFF, ON
10 00 2p 19	0000 000a	Receive Bender Switch	(0 - 1) OFF, ON
10 00 2p 1A	0000 000a	Receive Modulation Switch	(0 - 1) OFF, ON
10 00 2p 1B	0000 000a	Receive Volume Switch	(0 - 1) OFF, ON
10 00 2p 1C	0000 000a	Receive Pan Switch	(0 - 1) OFF, ON
10 00 2p 1D	0000 000a	Receive Hold-1 Switch	(0 - 1) OFF, ON
10 00 2p 1E	0000 000a	Receive Expression	(0 - 1) OFF, ON
00 00 00 1F	Total Size		

* SETUP ToneWheel Backup
(t: ToneWheel Number, ToneWheel 1: t=0..ToneWheel 10: t=9

Address	Description		
10 00 3t 00	0000 00aa	Percussion Harmonic	(0 - 2) OFF, 2ND, 3RD
10 00 3t 01	0000 000a	Percussion Decay	(0 - 1) SLOW, FAST
10 00 3t 02	0000 aaaa	Harmonic Bar 16'	(0 - 8)
10 00 3t 03	0000 aaaa	Harmonic Bar 5-1/3'	(0 - 8)
10 00 3t 04	0000 aaaa	Harmonic Bar 8'	(0 - 8)
10 00 3t 05	0000 aaaa	Harmonic Bar 4'	(0 - 8)
10 00 3t 06	0000 aaaa	Harmonic Bar 2-2/3'	(0 - 8)
10 00 3t 07	0000 aaaa	Harmonic Bar 2'	(0 - 8)
10 00 3t 08	0000 aaaa	Harmonic Bar 1-3/5'	(0 - 8)
10 00 3t 09	0000 aaaa	Harmonic Bar 1-1/3'	(0 - 8)
10 00 3t 0A	0000 aaaa	Harmonic Bar 1'	(0 - 8)
00 00 00 0B	Total Size		

■Decimal and Hexadecimal Table

(An "H" is appended to the end of numbers in hexadecimal notation.)

In MIDI documentation, data values and addresses/sizes of Exclusive messages, etc. are expressed as hexadecimal values for each 7 bits.

The following table shows how these correspond to decimal numbers.

D	H	D	H	D	H	D	H
0	00H	32	20H	64	40H	96	60H
1	01H	33	21H	65	41H	97	61H
2	02H	34	22H	66	42H	98	62H
3	03H	35	23H	67	43H	99	63H
4	04H	36	24H	68	44H	100	64H
5	05H	37	25H	69	45H	101	65H
6	06H	38	26H	70	46H	102	66H
7	07H	39	27H	71	47H	103	67H
8	08H	40	28H	72	48H	104	68H
9	09H	41	29H	73	49H	105	69H
10	0AH	42	2AH	74	4AH	106	6AH
11	0BH	43	2BH	75	4BH	107	6BH
12	0CH	44	2CH	76	4CH	108	6CH
13	0DH	45	2DH	77	4DH	109	6DH
14	0EH	46	2EH	78	4EH	110	6EH
15	0FH	47	2FH	79	4FH	111	6FH
16	10H	48	30H	80	50H	112	70H
17	11H	49	31H	81	51H	113	71H
18	12H	50	32H	82	52H	114	72H
19	13H	51	33H	83	53H	115	73H
20	14H	52	34H	84	54H	116	74H
21	15H	53	35H	85	55H	117	75H
22	16H	54	36H	86	56H	118	76H
23	17H	55	37H	87	57H	119	77H
24	18H	56	38H	88	58H	120	78H
25	19H	57	39H	89	59H	121	79H
26	1AH	58	3AH	90	5AH	122	7AH
27	1BH	59	3BH	91	5BH	123	7BH
28	1CH	60	3CH	92	5CH	124	7CH
29	1DH	61	3DH	93	5DH	125	7DH
30	1EH	62	3EH	94	5EH	126	7EH
31	1FH	63	3FH	95	5FH	127	7FH

D: decimal
H: hexadecimal

* Decimal values such as MIDI channel and program change are listed as one greater than the values given in the above table.

* A 7-bit byte can express data in the range of 128 steps. For data where greater precision is required, we must use two or more bytes. For example, two hexadecimal numbers aa bbH expressing two 7-bit bytes would indicate a value of aa x 128+bb.

* In the case of values which have a ± sign, 00H = -64, 40H = ±0, and 7FH = +63, so that the decimal expression would be 64 less than the value given in the above chart. In the case of two types, 00 00H = -8192, 40 00H = ±0, and 7F 7FH = +8191. For example, if aa bbH were expressed as decimal, this would be aa bbH - 40 00H = aa x 128+bb - 64 x 128.

* Data marked "Use nibbled data" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of a x 16+b.

<Example1> What is the decimal expression of 5AH?

From the preceding table, 5AH = 90

<Example2> What is the decimal expression of the value 12 34H given as hexadecimal for each 7 bits?

From the preceding table, since 12H = 18 and 34H = 52
18 x 128+52 = 2356

<Example3> What is the decimal expression of the nibbled value 0A 03 09 0D?

From the preceding table, since 0AH = 10, 03H = 3, 09H = 9, 0DH = 13
((10 x 16+3) x 16+9) x 16+13 = 41885

<Example4> What is the nibbled expression of the decimal value 1258?

```
16 ) 1258
16 )   78 ...10
16 )    4 ...14
         0 ... 4
```

Since from the preceding table, 0 = 00H, 4 = 04H, 14 = 0EH, 10 = 0AH, the result is: 00 04 0E 0AH.

■Examples of Actual MIDI Messages

<Example1> 92 3E 5F

9n is the Note-on status, and n is the MIDI channel number. Since 2H = 2, 3EH = 62, and 5FH = 95, this is a Note-on message with MIDI CH = 3, note number 62 (note name is D4), and velocity 95.

<Example2> CE 49

CnH is the Program Change status, and n is the MIDI channel number. Since EH = 14 and 49H = 73, this is a Program Change message with MIDI CH = 15, program number 74 (Flute in GS).

<Example3> EA 00 28

EnH is the Pitch Bend Change status, and n is the MIDI channel number. The 2nd byte (00H = 0) is the LSB and the 3rd byte (28H = 40) is the MSB, but Pitch Bend Value is a signed number in which 40 00H (= 64 x 12+80 = 8192) is 0, so this Pitch Bend Value is
28 00H - 40 00H = 40 x 12+80 - (64 x 12+80) = 5120 - 8192 = -3072
If the Pitch Bend Sensitivity is set to 2 semitones, -8192 (00 00H) will cause the pitch to change -200 cents, so in this case -200 x (-3072) ÷ (-8192) = -75 cents of Pitch Bend is being applied to MIDI channel 11.

<Example4> B3 64 00 65 00 06 0C 26 00 64 7F 65 7F

BnH is the Control Change status, and n is the MIDI channel number. For Control Changes, the 2nd byte is the control number, and the 3rd byte is the value. In a case in which two or more messages consecutive messages have the same status, MIDI has a provision called "running status" which allows the status byte of the second and following messages to be omitted. Thus, the above messages have the following meaning.

B3	64 00	MIDI ch.4, lower byte of RPN parameter number:	00H
(B3)	65 00	(MIDI ch.4) upper byte of RPN parameter number:	00H
(B3)	06 0C	(MIDI ch.4) upper byte of parameter value:	0CH
(B3)	26 00	(MIDI ch.4) lower byte of parameter value:	00H
(B3)	64 7F	(MIDI ch.4) lower byte of RPN parameter number:	7FH
(B3)	65 7F	(MIDI ch.4) upper byte of RPN parameter number:	7FH

In other words, the above messages specify a value of 0C 00H for RPN parameter number 00 00H on MIDI channel 4, and then set the RPN parameter number to 7F 7FH.

RPN parameter number 00 00H is Pitch Bend Sensitivity, and the MSB of the value indicates semitone units, so a value of 0CH = 12 sets the maximum pitch bend range to ±12 semitones (1 octave). (On GS sound generators the LSB of Pitch Bend Sensitivity is ignored, but the LSB should be transmitted anyway (with a value of 0) so that operation will be correct on any device.)

Once the parameter number has been specified for RPN or NRPN, all Data Entry messages transmitted on that same channel will be valid, so after the desired value has been transmitted, it is a good idea to set the parameter number to 7F 7FH to prevent accidents. This is the reason for the (B3) 64 7F (B3) 65 7F at the end.

It is not desirable for Performance data (such as Standard MIDI File data) to contain many events with running status as given in <Example 4>. This is because if playback is halted during the song and then rewound or fast-forwarded, the sequencer may not be able to transmit the correct status, and the sound generator will then misinterpret the data. Take care to give each event its own status.

It is also necessary that the RPN or NRPN parameter number setting and the value setting be done in the proper order. On some sequencers, events occurring in the same (or consecutive) clock may be transmitted in an order different than the order in which they were received. For this reason it is a good idea to slightly skew the time of each event (about 1 tick for TPQN = 96, and about 5 ticks for TPQN = 480).

* TPQN: Ticks Per Quarter Note

■Example of an Exclusive Message and Calculating a Checksum

Roland Exclusive messages (RQ1, DT1) are transmitted with a checksum at the end (before F7) to make sure that the message was correctly received. The value of the checksum is determined by the address and data (or size) of the transmitted Exclusive message.

●How to calculate the checksum

(hexadecimal numbers are indicated by "H")
The checksum is a value derived by adding the address, size, and checksum itself and inverting the lower 7 bits.
Here's an example of how the check sum is calculated. We will assume that in the Exclusive message we are transmitting, the address is aa bb cc ddH and the data or size is ee ffH.

aa + bb + cc + dd + ee + ff = sum
sum ÷ 128 = quotient ... remainder
128 - remainder = checksum

<Example1> Setting CHORUS TYPE to DELAY (DT1)

According to the "Parameter Address Map" (p. 164), the start address of Temporary Setup is 10 00 00 00H, the offset address of CHORUS at Setup is 04 00H, and the address of CHORUS TYPE is 00 00H. Therefore the address of CHORUS TYPE of Setup is;

```
   10 00 00 00H
         07 00H
+)       00 00H
   10 00 07 00H
```

DELAY has the value of 02H.

So the system exclusive message should be sent is;

F0	41	10	00 00 43	12	10 00 07 00	02	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

(1) Exclusive Status (2) ID (Roland) (3) Device ID (17)
(4) Model ID (RD-700SX) (5) Command ID (DT1) (6) End of Exclusive

Then calculate the checksum.

10H + 00H + 07H + 00H + 02H = 16 + 0 + 7 + 0 + 2 = 25 (sum)
25 (sum) ÷ 128 = 0 (quotient) ... 25 (remainder)
checksum = 128 - 25 (remainder) = 103 = 67H

This means that F0 41 10 00 43 12 10 00 04 00 02 6A F7 is the message should be sent.

<Example2> Getting Temporary Performance data (RQ1)

cf.) This operation is the same as Bulk Dump Temporary function in Utility.
According to the "Parameter Address Map" (p. 164), the start address of Temporary Setup is assigned as following:

10 00 00 00H	Setup Common
	:
10 00 39 00H	Setup Tone Wheel 10 Backup

As the data size of Setup Tone Wheel Back up is 00 00 00 0BH, summation of the size and the start address of Setup Tone Wheel 10 Back up at Temporary Setup will be;

```
   10 00 39 00H
+) 00 00 00 0BH
   10 00 39 0BH
```

And the size that have to be got should be;

```
   10 00 39 0BH
-) 10 00 00 00H
   00 00 39 0BH
```

Therefore the system exclusive message should be sent is;

F0	41	10	00 00 03	11	10 00 00 00	00 00 39 0B	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

(1) Exclusive Status (2) ID (Roland) (3) Device ID (17)
(4) Model ID (RD-700SX) (5) Command ID (RQ1) (6) End of Exclusive

Calculating the checksum as shown in <Example 2>, we get a message of F0 41 10 00 00 03 11 10 00 00 00 00 39 0B 2C F7 to be transmitted.

■ASCII Code Table

Setup Name of MIDI data are described the ASCII code in the table below.

D	H	Char	D	H	Char	D	H	Char
32	20H	SP	64	40H	@	96	60H	`
33	21H	!	65	41H	A	97	61H	a
34	22H	"	66	42H	B	98	62H	b
35	23H	#	67	43H	C	99	63H	c
36	24H	$	68	44H	D	100	64H	d
37	25H	%	69	45H	E	101	65H	e
38	26H	&	70	46H	F	102	66H	f
39	27H	`	71	47H	G	103	67H	g
40	28H	(	72	48H	H	104	68H	h
41	29H	)	73	49H	I	105	69H	i
42	2AH	*	74	4AH	J	106	6AH	j
43	2BH	+	75	4BH	K	107	6BH	k
44	2CH	,	76	4CH	L	108	6CH	l
45	2DH	—	77	4DH	M	109	6DH	m
46	2EH	.	78	4EH	N	110	6EH	n
47	2FH	/	79	4FH	O	111	6FH	o
48	30H	0	80	50H	P	112	70H	p
49	31H	1	81	51H	Q	113	71H	q
50	32H	2	82	52H	R	114	72H	r
51	33H	3	83	53H	S	115	73H	s
52	34H	4	84	54H	T	116	74H	t
53	35H	5	85	55H	U	117	75H	u
54	36H	6	86	56H	V	118	76H	v
55	37H	7	87	57H	W	119	77H	w
56	38H	8	88	58H	X	120	78H	x
57	39H	9	89	59H	Y	121	79H	y
58	3AH	:	90	5AH	Z	122	7AH	z
59	3BH	;	91	5BH	[	123	7BH	{
60	3CH	<	92	5CH	\	124	7CH	|
61	3DH	=	93	5DH	]	125	7DH	}
62	3EH	>	94	5EH	^			
63	3FH	?	95	5FH	_			

D: decimal

H: hexadecimal

* "SP" is space.

Digital Piano
Model RD-700SX

MIDI Implementation Chart

Date: Nov. 1, 2004
Version: 1.00

Function...		Transmitted		Recognized		Remarks
Basic Channel	Default	1–16		1–16		
	Changed	1–16		1–16		Memorized
Mode	Default	Mode 3		Mode 3		
	Messages	Mono, Poly		Mode 3, 4 (M = 1)		* 2
	Altered	**********				
Note Number :		0–127		0–127		
	True Voice	**********		0–127		
Velocity	Note On	O		O		
	Note Off	X 8n V=64		O		
After Touch	Key's	X		O	*4	
	Channel's	O	*5	O	*4	
Pitch Bend		O		O	*1	
Control Change	0, 32	O	*1	O	*1	Bank select
	1	O		O	*1	Modulation
	2	O	*5	O	*5	Breath type
	4	O	*5	O	*5	Foot type
	5	O		O		Portamento time
	6, 38	O		O		Data entry
	7	O		O	*1	Volume
	8	O	*5	O	*5	Balance
	10	O		O	*1	Panpot
	11	O	*5	O		Expression
	16	O	*5	O	*5	General purpose controller 1
	17	O	*5	O	*5	General purpose controller 2
	18	O	*5	O	*5	General purpose controller 3
	19	O	*5	O	*5	General purpose controller 4
	64	O		O	*1	Hold 1
	65	O		O		Portamento
	66	O		O		Sostenuto
	67	O		O		Soft
	68	O	*5	O	*5	Legato foot switch
	69	O	*5	O	*5	Hold 2
	70	O	*5	O	*5	Sound variation
	71	O		O		Resonance

72	O	O	Release time
73	O	O	Attack Time
74	O	O	Cuttoff
75	O *5	O *4	Decay time
76	O *5	O *4	Vibrato rate
77	O *5	O *4	Vibrato depth
78	O *5	O *4	Vibrato delay
80	O *5	O *5	General purpose controller 5
81	O *5	O *5	General purpose controller 6
82	O *5	O *5	General purpose controller 7
83	O *5	O *5	General purpose controller 8
84	O *5	O *5	Portamento control
91	O	O (Reverb)	General purpose effects 1
92	O *5	O *5	Tremolo
93	O	O (Chorus)	General purpose effects 3
94	O *5	O *5	Celeste
95	O *5	O *5	Phaser
1–31, 33–95	O	O	Foot Controller 1/2
1–31, 33–95	O	O	MFX Control
98, 99	O	X	NRPN LSB, MSB
100, 101	O	O	RPN LSB, MSB
0–127	O	X	
Program Change : True Number	O *1 **********	O *1 0–127	Program No. 1–128
System Exclusive	O *3	O *1	
System Common : Song Position	X	X	
System Common : Song Select	X	X	
System Common : Tune Request	X	X	
System Real Time : Clock	O *1	O *1	
System Real Time : Commands	O	X	
Aux Messages : All Sound Off	X	O (120, 126, 127)	
Aux Messages : Reset All Controllers	X	O	
Aux Messages : Local On/Off	X	X	
Aux Messages : All Notes Off	X	O (123–127)	
Aux Messages : Active Sensing	O	O	
Aux Messages : System Reset	X	X	
Notes	* 1 O X is selectable. * 2 Recognized as M=1 even if M≠1. * 3 Transmits when Data Transfer is executed or RQ1 received. * 4 GM Mode only. * 5 Transmits and receives by FC1/2 or MFX Control when these messages are assigned.		

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO O : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO X : No

Main Specifications

RD-700SX: Digital Piano (Conforms to General MIDI 2 System)

● Keyboard

88 keys (Progressive Hammer Action Keyboard)

● Part

16 Parts

● Maximum Polyphony

128 voices

● Wave Memory

128 M bytes (16-bit linear equivalent)

● Expansion Slots

Wave Expansion Board SRX Series: 2 slots

● Tones

Normal Tones: 208

Tonewheel Organ: 10

General MIDI 2 Tones: 256

Rhythm Sets: 5

General MIDI 2 Rhythm Sets: 9

● Setups

100

● Flash Memory

Approx. 1 M Bytes (1000 K bytes)

● Effects

Multi-Effects: 2 systems, 125 types

Reverb: 6 types

Chorus: 3 types

Sound Control (3-band Compressor)

3-band Digital Equalizer

● Arpeggiator

128 styles

● Rhythm Pattern

185 patterns

● Controllers

Zone Level slider x 4 (Assignable)

Equalizer knobs

Reverb knob

Chorus knob

Multi-Effects Control knob

Pitch Bend/Modulation lever

● Display

128 x 64 dots graphic LCD (with backlit)

● Connectors

Headphones Jack: Stereo 1/4 inch phone type

Output Jacks (L/MONO, R): 1/4 inch phone type

Output Jacks (L, R): XLR type

Pedal Jacks (DAMPER, FC1, FC2): 1/4 inch TRS phone type

MIDI Connectors (IN, OUT1, OUT2, THRU)

USB Connector (supports file transfer and MIDI)

AC Inlet

● Power Supply

AC 117 V, AC 230 V or AC 240 V (50/60 Hz)

AC 220 V (60 Hz)

● Power Consumption

12 W

● Dimensions

1,414 (W) x 374 (D) x 143 (H) mm

55-11/16 (W) x 14-3/4 (D) x 5-11/16 (H) inches

● Weight

24.5 kg / 54 lbs 1 oz

● Accessories

Owner's Manual

CD-ROM (RD USB Driver)

Damper Pedal (DP-8)

Power Cord

● Options

Wave Expansion Board: SRX Series

Keyboard Stand: KS-17

Pedal Switch: DP-2

Damper Pedal: DP-8, DP-10

Foot Switch: BOSS FS-5U,
FS-6 (TRS phone jacks cannot be used.)

Expression Pedal: EV-5, EV-7

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

Index

A

AC Inlet 14
Ambience 73
AMP Type 77
Arp Accent 96
Arp Hold 96
Arp Octave Range 96
Arp Velocity 96
Arp Zone 96
[ARPEGGIO] 12, 46
Arpeggio 46
Arpeggio Accent 96
Arpeggio Hold 96
Arpeggio Key Range 96
Arpeggio Motif 95
Arpeggio Octave Range 96
Arpeggio Style 47, 95
Arpeggio Style List 152
Arpeggio Tempo 95
Arpeggio Velocity 96
Arpeggio Zone 96
ATK 66
Attack Time
  External Zone 66
  Tone Info 72

B

B.R 67
BALANCED OUT Jacks 14
Bank Select LSB 63
Bank Select MSB 63
Bend Range
  External Zone 67
  Tone Info 72
Bender/Modulation Lever 44
BS 92
Bulk Dump 98
Bulk Dump SETUP 99
Bulk Dump Temporary 99

C

C.T 67
C1 (MFX Control) 87
C2 (MFX Control) 87
carte d'extension Wave 18
CC1 67
CC2 67
Ch 62
CHO 65
Chorus 43
  Edit 88
  External Zone 65
  Tone Info 71
Chorus Amount 71
Chorus Type 88
[CHORUS/DELAY] 12, 43
CHORUS/DELAY [DEPTH] knob 12, 44
Clock Out 81
Clock Source 81
Coarse Tune
  External Zone 67
  Tone Info 71
COF 66
Connection
  External Equipment 21
  MIDI 60, 101, 103
  Pedal 22
  USB 60
CONTRAST knob 13
Control 84
Control Channel 81
[CONTROL] knob 85
Control Knob Assign 85
[CONTROL/ZONE LEVEL] 12
Ctrl Knob 85
Cutoff
  E.Piano Edit 77
  External Zone 66
  Piano Edit 76
  Tone Info 72

D

Damper 81
DCY 66
Decay Time
  E.Piano Edit 77
  External Zone 66
  Piano Edit 76
  Tone Info 72
Delay 43
DEMO PLAY 31
Device ID 81
Display Mode 82
Distance 74
Dp(Damper Pedal Switch)
  External Zone 67
  Zone Info 70

E

[E.PIANO] 13, 32, 76
E.Piano Edit 76
[EDIT] 13, 30
Effect Depth 77
Effect Rate 77
Effect Type 77
Effects 86
[ENTER] 13
EQ Frequency
  E.Piano Edit 77
  Piano Edit 74
EQ Gain
  E.Piano Edit 77
  Piano Edit 74
EQ Mode 80
EQ Q
  E.Piano Edit 77

Piano Edit ... 74
EQ SW
E.Piano Edit ... 77
Piano Edit ... 74
Equalizer ... 45, 80
E.Piano Edit ... 77
Piano Edit ... 74
Ex ... 92
EXPANSION buttons ... 13
[EXTERNAL/INTERNAL] ... 12, 61–65

F

F.T ... 67
[F1(Tone Info)] ... 70
F1(FC1 Pedal Switch)
External Zone ... 67
Zone Info ... 70
[F2(Zone Info)] ... 68
F2(FC2 Pedal Switch)
External Zone ... 67
Zone Info ... 70
Factory Reset ... 25, 100
Favorite Setups ... 57
FC1 ... 80, 85
Polarity ... 81
FC2 ... 80, 85
Polarity ... 81
Feet ... 53–54
File Delete ... 91
File Utility/USB ... 89
Fine Tune
External Zone ... 67
Tone Info ... 71
FX1 ... 68
FX2 ... 68

H

H1 ... 92
Harmonic Bar ... 54
[HIGH] knob ... 12

I

Initialize(Piano Edit) ... 76

K

Key Range
Arpeggio ... 96
External Zone ... 66
V-Link ... 98
Zone Info ... 69
Key Range Lower
External Zone ... 66
Zone Info ... 69
Key Range Upper
External Zone ... 66
Zone Info ... 69
Key Touch ... 83
Edit ... 83
Piano Edit ... 74
Key Touch Offset
Edit ... 83
Piano Edit ... 75

L

Lid ... 74
Load SETUP File ... 90
Local ON/OFF ... 98
Local Switch ... 101–102
[LOW] knob ... 12
Lower Tone ... 38
Lowest No ... 98
LSB ... 63
LW1(Slider Assign) ... 85
LW1(Slider Switch)
External Zone ... 67
Zone Info ... 70
LW2(Slider Assign) ... 85
LW2(Slider Switch)
External Zone ... 67
Zone Info ... 70
LWR ... 66, 69

M

M.D ... 67
M/P ... 66
Master Tune ... 27
Master Volume ... 80
MAX ... 67
Max ... 69
Md(Modulation Switch)
External Zone ... 67
MIDI ... 92
Zone Info ... 70
MFX ... 52, 68, 86, 92
MFX Control ... 87
MFX Dest ... 87
MFX Structure ... 86
MFX Switch ... 92
MFX TYPE ... 71
MFX Type
Tone Info ... 71
MFX1 Source ... 86
Zone Info ... 68
MFX2 Source ... 86
Zone Info ... 68
Mic Type ... 74
Micro Tune ... 75
[MID FREQ] knob ... 12
[MID LEVEL] knob ... 12
MIDI ... 60, 92, 101
Connection ... 21
MIDI Connectors ... 14
MIDI Mode ... 104, 106
MIDI OUT Channel ... 62
MIDI Out Channel (Rhythm) ... 94
MIDI OUT Port ... 61

MIDI Out Port (Rhythm) 94
Modulation 44
Modulation Depth
External Zone 67
Mono/Poly
External Zone 66
Tone Info 71
Motif 95
MSB 63
MULTI EFECTS [CONTROL] knob 85
MULTI EFFECTS [CONTROL] 52
MULTI EFFECTS [ON/OFF] 52
Multi-Effects 52, 68, 86, 92
MULTI-EFFECTS [CONTROL] knob 12
MULTI-EFFECTS [ON/OFF] 12

N

Nuance 73
[NUM LOCK] 13, 30, 34

O

[ON/OFF] 12
ONE TOUCH [E.PIANO] 32, 76
ONE TOUCH [PIANO] 32, 73
OUT 61
OUTPUT Jacks 14
Output SELECT 88

P

P.A 69
P.T 67
PAN 65, 68
Pan
External Zone 65
MIDI 92
Part Parameter 92
Zone Info 68
Panel Lock 55
Part 28, 92
Tone Info 71
Part Assign
Zone Info 69
Part Mode 82
Part Parameter 91
Part Switch 92
Patrn 93
PB(Pitch Bend Switch)
External Zone 67
MIDI 92
Zone Info 70
PC 63, 92
Pedal
Connection 22
Pedal Assign 85
PEDAL Jacks 14
Pedal Mode 80
Pedal's Polarity 81
PHONES Jack 14
[PIANO] 13, 32, 73
Piano Edit 73
Pitch Bend 44
Pitch Bend/Modulation Lever 13
Pn 92
POR 67
Portamento
External Zone 67
Tone Info 71
Portamento Sw 71
Portamento Switch
External Zone 67
Tone Info 71
Portamento Time
External Zone 67
Tone Info 71
Power 23
[POWER ON] 23
[POWER ON] Switch 14
Program Change 63

R

Rec Mode 101
Rec Setting 101
Receive Channel 92
Recording 102
REL 66
Release Time
E.Piano Edit 77
External Zone 66
Piano Edit 76
Tone Info 72
RES 66
Resonance
E.Piano Edit 77
External Zone 66
Tone Info 72
Resonance Depth 75
Resonance Level 75
Resonance Pitch 75
REV 65
[REVERB] 12, 43
Reverb 43
Edit 87
External Zone 65
Piano Edit 73
Tone Info 71
Reverb Amount 71
REVERB [DEPTH] knob 12, 43
Reverb Level 73
Reverb Type 87
Rhy Accent 94
Rhy Set 94
Rhy Set Change 94
Rhy/Arp Duration 94
Rhy/Arp Grid 94
Rhythm Accent 94
Rhythm MIDI Out Channel 94

Rhythm MIDI Out Port 94
Rhythm Pattern 49, 93
Rhythm Pattern List 153
Rhythm Set 94
Rhythm Set Change 94
Rhythm Set List 149
Rhythm/Arpeggio 93
Rhythm/Arpeggio Duration 94
Rhythm/Arpeggio Grid 94
[RHYTHM/SONG] 12, 48, 50
Rotary Effect 54
Rx. GM/GM2 System ON 82
Rx. GS Reset 82
Rx.Bank Select 92
Rx.Expression 92
Rx.Hold-1 92
Rx.Modulation 92
Rx.Pan 92
Rx.Pitch Bend 92
Rx.Program Change 92
Rx.Volume 92

S

Save SETUP File 89
[SETUP] 13, 56
SETUP
  Bulk Dump 99
Setup 29, 56, 103
  Write 58
SETUP Files 105
[SHIFT/EXIT] 13
Shortcut List 155
Slider Assign 85
SMF 50, 105
SNS 67
Sns 69
[SOUND CONTROL] 12, 44
Sound Control 44, 88
Sound Control Type 89
[SPLIT] 12, 39
Split 38
Split Point 39
Standard MIDI Files 105
Stereo Width 73
Storage Mode 105
Stretch Tune 82
String Resonance 74
Style 95
Sympathetic Resonance 75
System 79
System Parameter 90

T

Temperament 82
Temperament Key 82
Tempo
  Arpeggio 95
  Arpeggop 47
  Rhythm 49, 93
  Song 51
Tone 28
  Part Parameter 92
  Piano Edit 73
  Tone Info 71
  Zone Info 68
Tone List 146
Tone Modify
  E.Piano Edit 77
  Piano Edit 76
  Tone Info 72
Tone Remain 81
TONE SELECT buttons 13
Tone Wheel 29
Tone Wheel Mode 53
TRA 66, 69
[TRANSPOSE] 13, 42
Transpose 42
  External Zone 66
  Zone Info 69
Type
  Chorus 88
  MFX 87
  MFX(Tone Info) 71
  Micro Tune(Piano Edit) 75
  Reverb 87
  Sound Control 89

U

UP1(Slider Assign) 85
UP1(Slider Switch)
  External Zone 67
  Zone Info 70
UP2(Sider Switch)
  Zone Info 70
UP2(Slider Assign) 85
UP2(Slider Switch)
  External Zone 67
Upper Tone 38
UPR 66, 69
USB 104
  Connection 21
USB Connector 14
USB Driver 106
USB Storage Mode 104
USER CC 67
Utility 98

V

Velo Delay Sens 75, 84
Velo Keyfolw Sens 75, 84
Velocity
  Areggio 96
  Edit 84
  External Zone 66–67
  Piano Edit 75
  Zone Info 69

Velocity Delay Sens
Edit 84
Piano Edit 75
Velocity Keyfollow Sens
Edit 84
Piano Edit 75
Velocity Max
External Zone 67
Zone Info 69
Velocity Range Lower
External Zone 66
Zone Info 69
Velocity Range Upper 66
Zone Info 69
Velocity Sens
Zone Info 69
Velocity Sensitivity
External Zone 67
Vl(Volume) 92
[V-LINK] 12, 97
V-LINK 97
V-Link Mode 98
V-Link OUT Port 98
V-Link Tx Channel 98
Voice Reserve 92
VOL 65, 68
Volume
External Zone 65
Master 80
Master Volume 24
Part Paramete 92
Rhythm 93
Zone Info 68
VOLUME Slider 12
VRL 66, 69
VRU 66, 69

W

Wave Expansion Board 15, 35
[WRITE] 13, 30, 58
Write 58

Z

Zone 28
ZONE LEVEL Slider 41
External Zone 64
ZONE LEVEL slider 12
ZONE SELECT 13
ZONE SWITCH 12, 41
External Zone 64

Purpose-Oriented Index

This index lists the main setting items relevant to play of the RD-700's keyboard.

** [EDIT]: aaa: bbb" indicates the bbb parameter in Edit screen aaa.*

Volume Setting

Changing the Volume for the entire RD-700SX
.....VOLUME Slider (p. 24)
.....[EDIT]: 0. System: Master Volume (p. 80)

Changing the volume for Individual Zone
.....ZONE LEVEL Slider (p. 41)
.....[Zone Info]: Volume (p. 68)

Changing the volume for each Internal Part
.....[EDIT]: 6. Part Parameter: Volume (p. 92)

Key Touch and Velocity

Changing the key touch .....[EDIT]: 1. Key Touch (p. 83)

Changing the value of velocity for each INTERNAL Zone
..... [Zone Info]: Velocity Sens (p. 69)
.....[Zone Info]: Velocity Max (p. 69)
.....[Zone Info]: Velocity Range (p. 69)

Equalizer

Preventing equalizer settings from being switched
.....[EDIT]: 0. System: EQ Mode (p. 80)

Setting the Equalizer..... EQUALIZER knob (p. 44)
.....PIANO EDIT: EQ (p. 74)
..... E. PIANO EDIT: EQ (p. 77)

Pitch and Tuning

Changing the pitch for the entire RD-700
.....[EDIT]: 0. System: Master Tune (p. 27)

Transposing the entire keyboard .....[TRNSPOSE] (p. 42)

Changing the pitch for each Tone
..... [Tone Info]: Coarse Tune (p. 71)
.....[Zone Info]: Fine Tune (p. 71)
.....[EDIT]: 0. System: Stretch Tune (p. 82)

Changing the pitch for each INTERNAL Zone
..... [Zone Info]: Transpose (p. 69)

Changing the pitch for each EXTERNAL Zone
.....[EXTERNAL/INTERNAL]: Transpose (p. 66)

Changing the temperament
.....[EDIT]: 0. System: Temperament (p. 82)

Changing the pitch for each key of Piano Tone
.....PIANO EDIT: Micro Tune (p. 75)

Effects (Reverb, Chorus, Multi-Effects)

Changing the amount of reverb for the entire RD-700SX
.....REVERB knob (p. 43)

Changing the amount of reverb for each Tone
.....[Tone Info]: Reverb Amount (p. 71)

Changing the amount of reverb for Piano Tone
.....PIANO EDIT: Reverb Level (p. 73)

Changing the reverb type
..... [EDIT]: 3. Effects: Reverb Type (p. 87)

Changing the amount of chorus for the entire RD-700
.....CHORUS knob (p. 43)

Changing the amount of chorus for each Tone
.....[Tone Info]: Chorus Amount (p. 71)

Changing the chorus type
..... [EDIT]: 3. Effects: Chorus Type (p. 88)

Changing the Multi-Effects type
..... [EDIT]: 3. Effects: MFX Type (p. 87)

Changing the Multi-Effects type for each Tone
..... [Tone Info]: MFX Type (p. 71)

Selecting the Part that the Multi-Effects applied to
.....[EDIT]: 3. Effects: MFX Source/Dest (p. 86)

Setting the Multi-Effects ON/OFF for Individual Parts
..... [EDIT]: 6. Part Parameter: MFX Switch (p. 92)

Control

Disabling the Pedal or Bender for Individual Parts
..... [Zone Info]: ** Switch (p. 70)

Changing the function of the MULTI EFFECTS [CONTROL] knob
.....[EDIT]: 2. Control: Control Knob Assign (p. 85)

Changing the function of the pedals
.....[EDIT]: 2. Control: FC1/FC2 Pedal Assign (p. 85)

Changing the function of the sliders
.....[EDIT]: 2. Control: slider Assign (p. 85)

Key Range

Setting the Key Range for each INTERNAL Zone
..... [Zone Info]: Key Range (p. 69)

For the USA

DECLARATION OF CONFORMITY
Compliance Information Statement

Model Name : RD-700SX
Type of Equipment : Digital Piano
Responsible Party : Roland Corporation U.S.
Address : 5100 S. Eastern Avenue, Los Angeles, CA 90040-2938
Telephone : (323) 890-3700

For EU Countries

CE

This product complies with the requirements of European Directives EMC 89/336/EEC and LVD 73/23/EEC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

AFRICA

EGYPT
Al Fanny Trading Office
9, EBN Hagar A1 Askalany Street,
ARD E1 Golf, Heliopolis,
Cairo 11341, EGYPT
TEL: 20-2-417-1828

REUNION
Maison FO - YAM Marcel
25 Rue Jules Hermann,
Chaudron - BP79 97 491
Ste Clotilde Cedex,
REUNION ISLAND
TEL: (0262) 218-429

SOUTH AFRICA
That Other Music Shop(PTY)Ltd.
11 Melle St., Braamfontein,
Johannesbourg,
SOUTH AFRICA
TEL: (011) 403 4105
FAX: (011) 403 1234

Paul Bothner(PTY)Ltd.
17 Werdmuller Centre,
Main Road, Claremont 7708
SOUTH AFRICA
TEL: (021) 674 4030

ASIA

CHINA
Roland Shanghai Electronics Co.,Ltd.
5F. No.1500 Pingliang Road
Shanghai 200090, CHINA
TEL: (021) 5580-0800

Roland Shanghai Electronics Co.,Ltd.
(BEIJING OFFICE)
10F. No.18 3 Section Anhuaxili
Chaoyang District Beijing
100011 CHINA
TEL: (010) 6426-5050

Roland Shanghai Electronics Co.,Ltd.
(GUANGZHOU OFFICE)
2/F., No.30 Si You Nan Er Jie
Yi Xiang, Wu Yang Xin Cheng,
Guangzhou 510600, CHINA
TEL: (020) 8736-0428

HONG KONG
Tom Lee Music Co., Ltd.
Service Division
22-32 Pun Shan Street, Tsuen Wan, New Territories,
HONG KONG
TEL: 2415 0911

Parsons Music Ltd.
8th Floor, Railway Plaza, 39
Chatham Road South, T.S.T,
Kowloon, HONG KONG
TEL: 2333 1863

INDIA
Rivera Digitec (India) Pvt. Ltd.
409, Nirman Kendra
Mahalaxmi Flats Compound
Off. Dr. Edwin Moses Road,
Mumbai-400011, INDIA
TEL: (022) 2493 9051

INDONESIA
PT Citra IntiRama
J1. Cideng Timur No. 15J-150
Jakarta Pusat
INDONESIA
TEL: (021) 6324170

KOREA
Cosmos Corporation
1461-9, Seocho-Dong,
Seocho Ku, Seoul, KOREA
TEL: (02) 3486-8855

MALAYSIA
Roland Asia Pacific Sdn. Bhd.
45-1, Block C2, Jalan PJU 1/39,
Dataran Prima, 47301 Petaling Jaya, Selangor, MALAYSIA
TEL: (03) 7805-3263

PHILIPPINES
G.A. Yupangco & Co. Inc.
339 Gil J. Puyat Avenue
Makati, Metro Manila 1200,
PHILIPPINES
TEL: (02) 899 9801

SINGAPORE
SWEE LEE MUSIC COMPANY PTE. LTD.
150 Sims Drive,
SINGAPORE 387381
TEL: 6846-3676

CRISTOFORI MUSIC PTE LTD
Blk 3014, Bedok Industrial Park E,
#02-2148, SINGAPORE 489980
TEL: 6243-9555

TAIWAN
ROLAND TAIWAN ENTERPRISE CO., LTD.
Room 5, 9fl. No. 112 Chung Shan N.Road Sec.2, Taipei,
TAIWAN, R.O.C.
TEL: (02) 2561 3339

THAILAND
Theera Music Co. , Ltd.
330 Verng NakornKasem, Soi 2,
Bangkok 10100, THAILAND
TEL: (02) 2248821

VIETNAM
Saigon Music
Suite DP-8
40 Ba Huyen Thanh Quan Street
Hochiminh City, VIETNAM
TEL: (08) 930-1969

AUSTRALIA/ NEW ZEALAND

AUSTRALIA/ NEW ZEALAND
Roland Corporation Australia Pty.,Ltd.
38 Campbell Avenue
Dee Why West. NSW 2099
AUSTRALIA

For Australia
Tel: (02) 9982 8266
For New Zealand
Tel: (09) 3098 715

CENTRAL/LATIN AMERICA

ARGENTINA
Instrumentos Musicales S.A.
Av.Santa Fe 2055
(1123) Buenos Aires
ARGENTINA
TEL: (011) 4508-2700

BARBADOS
A&B Music Supplies LTD
12 Webster Industrial Park
Wildey, St.Michael, Barbados
TEL: (246)430-1100

BRAZIL
Roland Brasil Ltda.
Rua San Jose, 780 Sala B
Parque Industrial San Jose
Cotia - Sao Paulo - SP, BRAZIL
TEL: (011) 4615 5666

CHILE
Comercial Fancy II S.A.
Rut.: 96.919.420-1
Nataniel Cox #739, 4th Floor
Santiago - Centro, CHILE
TEL: (02) 688-9540

COLOMBIA
Centro Musical Ltda.
Cra 43 B No 25 A 41 Bododega 9
Medellin, Colombia
TEL: (574)3812529

COSTA RICA
JUAN Bansbach Instrumentos Musicales
Ave.1. Calle 11, Apartado 10237,
San Jose, COSTA RICA
TEL: 258-0211

CURACAO
Zeelandia Music Center Inc.
Orionweg 30
Curacao, Netherland Antilles
TEL:(305)5926866

DOMINICAN REPUBLIC
Instrumentos Fernando Giraldez
Calle Proyecto Central No.3
Ens.La Esperilla
Santo Domingo,
Dominican Republic
TEL:(809) 683 0305

ECUADOR
Mas Musika
Rumichaca 822 y Zaruma
Guayaquil - Ecuador
TEL:(593-4)2302364

EL SALVADOR
OMNI MUSIC
75 Avenida Norte y Final
Alameda Juan Pablo II,
Edificio No.4010 San Salvador,
EL SALVADOR
TEL: 262-0788

GUATEMALA
Casa Instrumental
Calzada Roosevelt 34-01,zona 11
Ciudad de Guatemala
Guatemala
TEL:(502) 599-2888

HONDURAS
Almacen Pajaro Azul S.A. de C.V.
BO.Paz Barahona
3 Ave.11 Calle S.O
San Pedro Sula, Honduras
TEL: (504) 553-2029

MARTINIQUE
Musique & Son
Z.I.Les Mangle
97232 Le Lamantin
Martinique F.W.I.
TEL: 596 596 426860

Gigamusic SARL
10 Rte De La Folie
97200 Fort De France
Martinique F.W.I.
TEL: 596 596 715222

MEXICO
Casa Veerkamp, s.a. de c.v.
Av. Toluca No. 323, Col. Olivar de los Padres 01780 Mexico
D.F. MEXICO
TEL: (55) 5668-6699

NICARAGUA
Bansbach Instrumentos Musicales Nicaragua
Altamira D'Este Calle Principal de la Farmacia 5ta.Avenida
1 Cuadra al Lago.#503
Managua, Nicaragua
TEL: (505)277-2557

PANAMA
SUPRO MUNDIAL, S.A.
Boulevard Andrews, Albrook,
Panama City, REP. DE PANAMA
TEL: 315-0101

PARAGUAY
Distribuidora De Instrumentos Musicales
J.E. Olear y ESQ. Manduvira
Asuncion PARAGUAY
TEL: (595) 21 492147

PERU
Audionet
Distribuciones Musicales SAC
Juan Fanning 530
Miraflores
Lima - Peru
TEL: (511) 4461388

TRINIDAD
AMR Ltd
Ground Floor
Maritime Plaza
Barataria Trinidad W.I.
TEL: (868)638 6385

URUGUAY
Todo Musica S.A.
Francisco Acuna de Figueroa 1771
C.P.: 11.800
Montevideo, URUGUAY
TEL: (02) 924-2335

VENEZUELA
Instrumentos Musicales Allegro,C.A.
Av.las industrias edf.Guitar import
#7 zona Industrial de Turumo
Caracas, Venezuela
TEL: (212) 244-1122

EUROPE

AUSTRIA
Roland Elektronische Musikinstrumente HmbH.
Austrian Office
Eduard-Bodem-Gasse 8,
A-6020 Innsbruck, AUSTRIA
TEL: (0512) 26 44 260

BELGIUM/FRANCE/ HOLLAND/ LUXEMBOURG
Roland Central Europe N.V.
Houtstraat 3, B-2260, Oevel (Westerlo) BELGIUM
TEL: (014) 575811

CZECH REP.
K-AUDIO
Kardasovska 626.
CZ-198 00 Praha 9,
CZECH REP.
TEL: (2) 666 10529

DENMARK
Roland Scandinavia A/S
Nordhavnsvej 7, Postbox 880,
DK-2100 Copenhagen
DENMARK
TEL: 3916 6200

FINLAND
Roland Scandinavia As, Filial Finland
Elannontie 5
FIN-01510 Vantaa, FINLAND
TEL: (0)9 68 24 020

GERMANY
Roland Elektronische Musikinstrumente HmbH.
Oststrasse 96, 22844
Norderstedt, GERMANY
TEL: (040) 52 60090

GREECE
STOLLAS S.A.
Music Sound Light
155, New National Road
Patras 26442, GREECE
TEL: 2610 435400

HUNGARY
Roland East Europe Ltd.
Warehouse Area 'DEPO' Pf.83
H-2046 Torokbalint,
HUNGARY
TEL: (23) 511011

IRELAND
Roland Ireland
G2 Calmount Park, Calmount Avenue, Dublin 12
Republic of IRELAND
TEL: (01) 4294444

ITALY
Roland Italy S. p. A.
Viale delle Industrie 8,
20020 Arese, Milano, ITALY
TEL: (02) 937-78300

NORWAY
Roland Scandinavia Avd. Kontor Norge
Lilleakerveien 2 Postboks 95
Lilleaker N-0216 Oslo
NORWAY
TEL: 2273 0074

POLAND
MX MUSIC SP.Z.O.O.
UL. Gibraltarska 4.
PL-03664 Warszawa POLAND
TEL: (022) 679 44 19

PORTUGAL
Roland Iberia, S.L.
Portugal Office
Cais das Pedras, 8/9-1 Dto
4050-465, Porto, PORTUGAL
TEL: 22 608 00 60

ROMANIA
FBS LINES
Piata Libertatii 1,
535500 Gheorgheni,
ROMANIA
TEL: (266) 364 609

RUSSIA
MuTek
3-Bogatyrskaya Str. 1.k.l
107 564 Moscow, RUSSIA
TEL: (095) 169 5043

SPAIN
Roland Iberia, S.L.
Paseo García Faria, 33-35
08005 Barcelona SPAIN
TEL: 93 493 91 00

SWEDEN
Roland Scandinavia A/S
SWEDISH SALES OFFICE
Danvik Center 28, 2 tr.
S-131 30 Nacka SWEDEN
TEL: (0)8 702 00 20

SWITZERLAND
Roland (Switzerland) AG
Landstrasse 5, Postfach,
CH-4452 Itingen,
SWITZERLAND
TEL: (061) 927-8383

UKRAINE
TIC-TAC
Mira Str. 19/108
P.O. Box 180
295400 Munkachevo,
UKRAINE
TEL: (03131) 414-40

UNITED KINGDOM
Roland (U.K.) Ltd.
Atlantic Close, Swansea Enterprise Park, SWANSEA
SA7 9FJ,
UNITED KINGDOM
TEL: (01792) 702701

MIDDLE EAST

BAHRAIN
Moon Stores
No.16, Bab Al Bahrain Avenue,
P.O.Box 247, Manama 304,
State of BAHRAIN
TEL: 17 211 005

CYPRUS
Radex Sound Equipment Ltd.
17, Diagorou Street, Nicosia,
CYPRUS
TEL: (022) 66-9426

IRAN
MOCO INC.
No.41 Nike St., Dr.Shariyati Ave.,
Roberoye Cerahe Mirdamad
Tehran, IRAN
TEL: (021) 285-4169

ISRAEL
Halilit P. Greenspoon & Sons Ltd.
8 Retzif Ha'aliya Hashnya St.
Tel-Aviv-Yafo ISRAEL
TEL: (03) 6823666

JORDAN
AMMAN Trading Agency
245 Prince Mohammad St.,
Amman 1118, JORDAN
TEL: (06) 464-1200

KUWAIT
EASA HUSAIN AL-YOUSIFI & SONS CO.
Abdullah Salem Street,
Safat, KUWAIT
TEL: 243-6399

LEBANON
Chahine S.A.L.
Gerge Zeidan St., Chahine Bldg., Achrafieh, P.O.Box: 16-5857
Beirut, LEBANON
TEL: (01) 20-1441

OMAN
TALENTZ CENTRE L.L.C.
P.O. BOX 37, MUSCAT,
POSTAL CODE 113
TEL: 931-3705

QATAR
Al Emadi Co. (Badie Studio & Stores)
P.O. Box 62, Doha, QATAR
TEL: 4423-554

SAUDI ARABIA
aDawliah Universal Electronics APL
Corniche Road, Aldossary Bldg., 1st Floor, Alkhobar,
SAUDI ARABIA

P.O.Box 2154, Alkhobar 31952
SAUDI ARABIA
TEL: (03) 898 2081

SYRIA
Technical Light & Sound Center
Rawda, Abdul Qader Jazairi St.
Bldg. No. 21, P.O.BOX 13520,
Damascus, SYRIA
TEL: (011) 223-5384

TURKEY
Ant Muzik Aletleri Ithalat Ve Ihracat Ltd Sti
Siraselviler Caddesi
Siraselviler Pasaji No:74/20
Taksim - Istanbul, TURKEY
TEL: (0212) 2449624

U.A.E.
Zak Electronics & Musical Instruments Co. L.L.C.
Zabeel Road, Al Sherooq Bldg.,
No. 14, Grand Floor, Dubai,
U.A.E.
TEL: (04) 3360715

NORTH AMERICA

CANADA
Roland Canada Music Ltd. (Head Office)
5480 Parkwood Way
Richmond B. C., V6V 2M4
CANADA
TEL: (604) 270 6626

Roland Canada Music Ltd. (Toronto Office)
170 Admiral Boulevard
Mississauga On L5T 2N6
CANADA
TEL: (905) 362 9707

U. S. A.
Roland Corporation U.S.
5100 S. Eastern Avenue
Los Angeles, CA 90040-2938,
U. S. A.
TEL: (323) 890 3700

As of January 15, 2005 (ROLAND)

03788712 '05-9-4N